

**RESPONSE  
TO  
REQUEST FOR QUALIFICATIONS**

**"SUPPLYING WATER TO MEET THE NEEDS  
OF  
DECATUR, RIPLEY & JENNINGS COUNTIES"**

**SUBMITTED TO:  
Indiana Finance Authority  
c/o State Revolving Fund Loan Program  
Att: Mr. James P. McGoff  
100 North Senate Avenue, Room 1275  
Indianapolis, Indiana 46204**

**SUBMITTED BY:  
Jennings Water, Inc.**

**Board of Directors  
David Beesley, President  
Susie Hatton, Vice President  
Clyde Campbell, Secretary  
Mark Biehle, Treasurer  
Phillip Daeger, Member  
Patrick Fry, Member  
Peggy Murphy, Member  
Melvin Biehle, Member  
Harold Day, Member**

**PREPARED BY:  
Robert E. Curry & Associates, Inc  
Engineers & Architects  
110 Commerce Drive  
Danville, IN 46122**

**September 28, 2007**

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DECATUR, RIPLEY & JENNINGS COUNTIES**

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**SECTION I**  
**RESPONDENT DATA**

**I. HISTORY**

Jennings Water, Inc. is an Indiana business as defined in I.C. 5-22-20-5. It is a not-for-profit rural water company that serves potable water primarily in Jennings County and counties adjacent to Jennings County. Water is served to a small quantity of customers in Jackson County, Ripley County and Decatur County. Currently Jennings Water, Inc. serves water to approximately 3,200 water customers. One of these water customers is a water utility known as Jennings Northern Regional Utilities that includes Country Squire Lake Estates subdivision which contains approximately 1,600 residential water customers. Therefore, Jennings Water, Inc. provides water indirectly to approximately 4,800 water customers.

Jennings Water, Inc. is the product of the merger of two rural water companies that took place in approximately 1975. The rural water utilities known as Geneva Township Water Company and Muscatatuck Water Company were organized in the 1960's and they merged to form Jennings Water, Inc. Originally these two utilities purchased water from the City of North Vernon. They merged and formed a single utility to expand and benefit from economies of scale. Their first objective was to develop a water source independent of the City of North Vernon. Implementation of this objective gave Jennings Water the freedom to expand into many locations where rural water was needed. The development of a new water supply, independent from North Vernon, was a benefit to both Jennings Water and the City of North Vernon. Both utilities benefited

from increased water supply availability and it was possible for both utilities to grow and expand.

Jennings Water has a history of growing to meet the demands of citizens within and adjacent to its water service area. This utility has only one function and that is to provide a quality water service to residential, commercial, industrial and institutional water customers. One of its primary considerations is to provide water at the most economical cost. To achieve this consideration it endeavors to grow in a manner that benefits from economies of scale. Since many of the costs of a water utility are fixed, it is beneficial to all customers when these costs can be distributed over a larger number of customers.

## II. TECHNICAL QUALIFICATIONS AND EXPERIENCE OF RESPONDENT

Jennings Water has a demonstrated history of operational, managerial and accounting compliance with local, state and federal agencies. Jennings Water, Inc. or its predecessor utilities has functioned very efficiently in producing a quality water service to its customers for over 40 years. The quality of water produced by Jennings Water is closely monitored by the Indiana Department of Environmental Management. The primary source of financial assistance to Jennings Water and its predecessors has been, and continues to be, the Rural Development Agency of United States Department of Agriculture. Jennings Water, Inc. has ongoing interaction with the Indiana Department of Transportation in performing water utility relocation to accommodate transportation improvements on S.R. 3, S.R. 7 and U.S. 50. At the local level, Jennings Water recently cooperated with the City of North Vernon in their efforts to expand their industrial park, to serve the unique water supply needs of industrial customers in the industrial park. Jennings Water and the City of North Vernon provide backup water



supply in the event of an emergency or a water supply interruption. Successful growth of Jennings Water has resulted from their ability to achieve a high level of cooperation with various city, county, state and federal agencies. Annually, Jennings Water has an accounting audit performed by a Certified Public Accountant that meets accounting standards established by Rural Economic Community Development.

Since 1975 Jennings Water has expanded various components of its water production, treatment, delivery and storage facilities. These improvements ranged from very simple water main extensions to construction of a 3,000,000 gallons-per-day state-of-the-art water softening plant. Improvements have been made to satisfy the water demand of the utility's customers. Jennings Water has created and followed a master plan concept for identifying and satisfying long-term needs of the utility. Past master plans have contained benchmarks for action that were predetermined by the Board of Directors. When a master plan benchmark was approached, the utility implemented the organizational and control functions necessary to carry out waterworks improvements in an efficient manner. Recent major waterworks improvements were performed in 1996 and 2006 to achieve the master plan of Jennings Water. The master plan concept has allowed Jennings Water to properly size major road crossings or water main relocations.

In the spring of 2007, Jennings Water, Inc. completed a \$5,712,500.00 waterworks improvements project funded by the Rural Development Agency. That project was a comprehensive waterworks improvement, consisting of a 1,300 gpm water supply well, the expansion of a water softening plant and construction of approximately nine (9) miles of 20" diameter water main. This comprehensive project involved interaction with various units of county government, state government, federal government, private citizens and interstate pipeline companies. The detailed procedures of the Rural Development Agency were followed. Extensive environmental and natural

resources issues were addressed as part of this project. Multiple easements were secured, after extensive communications, from private land owners as a part of this project. Permission to construct in public right-of-way was secured from the Indiana Department of Transportation and the Jennings County Highway Department. Permission to cross petroleum pipelines was secured at multiple locations along the water main route.

Managerially, Jennings Water has a demonstrated history of implementing waterworks projects of various scales. Controlling the financial variables is deemed to be a critical component of implementing waterworks improvements projects of any scale. The multimillion dollar project completed in 2007 consisted of three contracts. A separate contract was issued for the water supply well, water treatment plant and water transmission mains. The original sum of these three contracts was \$4,971,259.71 and the final contract amount after completion of all construction was \$4,938,559.70. The net cost change during construction was a decrease of \$32,700.01. Further, the Board of Directors implement rigid control standards to assure that waterworks improvements are completed in a timely manner. For the subject project construction was started on July 13, 2006 and all components of the project were operational by May of 2007. Control of construction performance is the result of the Board of Directors' insistence on thorough communications and cooperation with utility personnel and professionals representing Jennings Water, Inc.

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	Original Contract	Final Contract	Change In
<u>Contractor</u>	<u>Amount</u>	<u>Amount</u>	<u>Contract Amount</u>
National Water Service	\$ 99,970.00	\$ 102,019.66	+ \$ 2,049.66
Mitchell & Stark Const.	\$ 1,926,488.61	\$1,973,663.26	+ \$ 47,174.65
Dave O'Mara Const.	<u>\$ 2,944,801.10</u>	<u>\$2,862,876.78</u>	<u>(- \$ 81,924.32)</u>
TOTAL COST	\$ 4,971,259.71	\$4,938,559.70	(-\$ 32,700.01)

Efficient oversight of waterworks improvements projects by the Board of Directors has resulted in successful implementation of numerous waterworks improvements. The Board of Directors employs a team of experienced accountants, engineers and attorneys. Jennings Water utilizes professionals experienced in the waterworks industry to assist them in the complex technical issues associated with operation, expansion and maintenance of their large rural water utility. Certified Public Accountants perform all accounting associated with establishing rates and charges for water as well as annual audits. Licensed professional engineers represent the water utility on all engineering matters. A licensed attorney represents the utility in the multitude of legal details associated with operation of a waterworks.

Each month a licensed professional engineer and a licensed attorney attend the monthly meeting of the Board of Directors. This enables the Board of Directors to receive timely opinions concerning technical matters. Prompt access to technical information enables the Board to take prompt action to respond to the issues coming before the Board of Directors.

The Engineering firm of Robert E. Curry and Associates has provided professional engineering services to Jennings Water, Inc. since approximately 1984. The law firm of Cline, King and King, P.C. has provided legal services since approximately 1982 to Jennings Water Inc. Water rate accounting consulting is

performed by Patrick Callahan and Associates, Inc. The accounting firm of Rettig, Blankman, Seale and Knueven performs an annual audit of the accounting records of Jennings Water, Inc.

### III. RESPONDENT KNOWLEDGE OF WATER NEEDS IN THREE-COUNTY AREA

The three-county area of Decatur, Jennings and Ripley Counties share many common characteristics. These characteristics combine to shape the economic future of the three counties. The three counties are linked by a common transportation network consisting of S.R. 7, S.R. 3, U.S. 50, U.S. 421, I-65 on the south, and I-74 on the north. The mix of topographic features is very similar in the three counties, with each county containing much farm ground. The geographic features of the three-county area are very similar. Finally, each of the three counties shares the same geological characteristic with respect to water supply. Specifically, these three counties all lack access to ground water. The streams that flow through these three counties tend to experience very low flow volumes during summer months.

Jennings Water, Inc. operates its utility in the southern portion of the three-county area and abuts each of the other two counties. Consequently, Jennings Water has nearly identical water supply issues as Ripley County and Decatur County. The practical conclusion is that ground water is practically nonexistent in this three-county area. Greensburg is the only urban area in the three-county area that has a ground water supply with limited available quantity and limits for potential expansion. The City of Batesville, City of Greensburg, City of North Vernon, Town of Versailles, Town of Osgood and Town of Westport all have surface water supplies. The common characteristic to all these water utilities is their lack of access to ground water and with the exception of Greensburg, their only alternative is surface water.

The surface water streams flowing through Jennings, Decatur and Ripley Counties experience very low flow or minimal flow during the summer months. Consequently, Greensburg, Batesville, Versailles, Osgood, North Vernon and Westport all utilize water storage containment for surface water. Water is removed from streams during periods of low flow and contained in impoundments for use throughout the year.

## RIPLEY COUNTY, JENNINGS COUNTY AND DECATUR COUNTY WATER UTILITIES

### SURFACE WATER SUPPLIES

#### CITY OF BATESVILLE

In Ripley County, the City of Batesville and the Towns of Versailles and Osgood rely upon Laughery Creek for their surface water supply. Batesville is located at the extreme northern end of Laughery Creek. The City of Batesville utilizes a series of five reservoirs which collect and impound water. The Bischoff Reservoir is the largest reservoir and it supplies approximately 90% of the water used by the City of Batesville. Bischoff Reservoir has a drainage area of only 2,900 acres. Due to the age of Bischoff Reservoir, it is experiencing siltation and increased aquatic growth due to increased nutrients entering the reservoir. Farming and residential development are located within this drainage area. The future for Batesville's raw water supply will include diminishing supply for raw water due to displacement of water with silt and diminished water quality due to increased nutrient inflow. The combined potential for residential, commercial and industrial growth will function to further diminish Batesville's decreasing raw water supply.

## TOWN OF OSGOOD

The Town of Osgood is located downstream from the City of Batesville on Laughery Creek. A low head dam is constructed in Laughery Creek and a raw water pumping structure extracts raw water from Laughery Creek. The raw water pumping station pumps raw water to a pair of abandoned quarries on the west side of the Town of Osgood. The two quarries had a total estimated water storage of 111,500,000 gallons in 1989. The quarries provide settling, sunlight exposure and surface aeration. Raw water is then pumped to a 1,000 gpm surface water treatment plant. Due to certain capacity constraints, this plant has the capacity to produce approximately 750 gallons per minute. The Osgood water treatment plant is approximately 30 years old and is in relatively good condition.

The Town of Osgood water treatment plant and raw water main were constructed approximately 30 years ago to serve as a regional water supply. In addition to the Town of Osgood, the communities that were planned to receive water from the Town of Osgood waterworks were as follows:

1. Elrod Water Company
2. Napoleon Community Water Association
3. Holton Rural Water Company

The regional water supply plan was implemented and continues to serve the same utilities except for Elrod Water Company. Elrod Water Company has since become known as Hoosier Hills Regional Water District and has developed its own source of water supply. The loss of Elrod has been beneficial to the other three utilities in that it has made more water available for the remaining utilities.

When the Osgood water treatment plant was constructed, the raw water intake structure and raw water pumping facilities at Laughery Creek were not upgraded. Due

to aging and normal deterioration the raw water intake structure and pumping equipment are in a deteriorated condition. Future upgrading of the raw water intake structure should include higher capacity pumps to provide sufficient velocity of flow to prevent deposits in the 12" raw water main.

### TOWN OF VERSAILLES

The Town of Versailles is located downstream of both the City of Batesville and the Town of Osgood on Laughery Creek. The Indiana Department of Natural Resources has maintained Versailles Lake on Laughery Creek for many years. Versailles Lake is a recreational attraction for Versailles State Park and a water supply reservoir for the Town of Versailles. The Town of Versailles has a raw water intake structure located adjacent to the dam of Versailles Lake. Water flows from the intake structure to a settling basin below the dam where raw water pumps take suction and deliver water to the Versailles water treatment plant. The Town of Versailles has a package 700 gpm surface water treatment plant that was constructed in 2006.

The Town of Versailles' water treatment commences with the addition of potassium permanganate at the raw water intake. The water treatment process includes aeration, addition of powdered carbon, addition of alum, addition of soda ash, addition of polymer, addition of fluoride, filtration addition of chlorine and ultra-violet light exposure. This is a very complex water treatment process that is necessitated by the poor quality in Versailles Lake. In recent years the Town of Versailles has experienced issues with exceeding chemical contaminant levels due to farm field runoff. These issues directly relate to agricultural field runoff that occurs in the spring crop planting season. In addition to water, Versailles Lake stores herbicides, pesticides, fertilizer, treated wastewater plant effluent and silt. Water flow through Versailles Lake is totally

stopped during the summer months. Further, there is no stream flow in Laughery Creek to dilute the chemicals contained in Versailles Lake.

One of the major ongoing issues with Versailles Lake is siltation. Extensive silt deposits are apparent around the perimeter of Versailles Lake. There is massive accumulation of silt at all the stream entrances to Versailles Lake. The fertile silt, shallow water and nutrient concentration make Versailles Lake a haven for aquatic plant growth. Algae flourish in Versailles Lake due to nutrient concentrations, shallowness of the lake and reduced surface available for surface aeration. The issue of siltation of Versailles Lake has been discussed for many years.

The issue of massive silt deposits has been known for many years by state and local officials. The rate of silt accumulation is accelerating at a rapid rate because each year's accumulation of silt serves as a catalyst to increase future siltation. Extensive efforts have been made to cope with the problem and to eliminate the problem. The Indiana Department of Natural Resources closed their public beach at Versailles Lake and opened a swimming pool to avoid water quality problems associated with siltation. IDNR has performed extensive engineering planning and design associated with removal of silt from Versailles Lake. Due to a variety of technical and financial issues, silt deposits continues to be an ongoing problem in Versailles Lake. Failure to address the silt deposits issue in Versailles Lake will simply result in loss of Versailles Lake as a viable raw water source.

#### CITY OF NORTH VERNON

The City of North Vernon utilizes the Vernon Fork of the Muscatatuck River as its source of surface water. During summer months some years this stream ceases to flow. During these periods water is released, upon request, from an impoundment on Brush



Creek known as Brush Creek Reservoir. Discharge from Brush Creek Reservoir flows directly into the Vernon Fork of Muscatatuck River and ultimately to the raw water intake at the City of North Vernon. During the summer of 2007 the City of North Vernon requested release of water from Brush Creek Reservoir on several occasions. Recent improvements to the dam at Brush Creek Reservoir have enabled better quality water to be released from the reservoir than in years past. This method of release of water does function but it is a very inefficient means of supplying water, due to evaporation and percolation of water in the stream bed of the Muscatatuck River. Brush Creek Reservoir is owned and operated by the Indiana Department of Natural Resources. This reservoir also provides raw water for an existing water treatment plant at the former Muscatatuck State Hospital which is now a training center for the Indiana Department of Homeland Security known as the Muscatatuck Urban Training Center.

The City of North Vernon has experienced substantial growth in their industrial park. Also, residential and commercial growth is thriving in North Vernon. The population of North Vernon increased over 14% in the past decade. The following adjacent water companies purchase water from the City of North Vernon:

1. Town of Vernon
2. Burnt Pines Water Company
3. Hayden Water Company

In the year 2001 the City of North Vernon sold approximately 96,000,000 gallons or approximately 20% of their total water sales to these three wholesale water customers. The combined water demand, from various sources, is increasing for the City of North Vernon. Additional factors affecting North Vernon's growth are its proximity to Interstate Highway 65, the City of Columbus and the City of Greensburg. North Vernon is a

transportation hub that is nearly ideal for several types of growth. This growth will certainly increase water demand at the City of North Vernon.

North Vernon has operated for its entire history as a surface water supply. Increasing their water supply by means of surface water is possible but would be very costly to achieve. The North Vernon water treatment plant has upgraded various components of the water plant in recent years. However, the overall surface water treatment plant would require major improvements to increase its capacity. The City of North Vernon has three viable available alternatives to increase their water supply consisting of the following:

1. Purchase water from Indiana America Water Co. at Seymour, IN
2. Purchase water from Jennings Water, Inc.
3. Develop a well field and treatment plant on the White River.

Other water supply strategies that would enable North Vernon to achieve increased water availability to their immediate growth needs would be to negotiate transfer of Hayden Water Company to Jennings Water Company. In the year 2001, the Hayden Water Company purchased 63,007,300 gallons of water from the City of North Vernon or 12.6% of North Vernon's total water sales.

#### CITY OF GREENSBURG

The City of Greensburg relies upon a combination of surface water supplemented with ground water. There are several rock wells in and around Greensburg that are viable, when combined, in terms of their total production of water quality and quantity. At this time Greensburg's most productive source of raw water is a surface water source consisting of an off stream holding reservoir immediately adjacent to I-74. Raw water is pumped from Flat Rock River to the holding reservoir. This type of

reservoir is less sensitive to siltation than an impoundment located directly on a stream. Filling of this type reservoir can be done at times that allows selection of the best quality water. Currently Greensburg segregates their ground water and surface water. Separate water treatment plants provide treatment for the surface water and for the ground water. Segregation of the ground water and surface water allows for more efficient treatment of ground water. Treatment of the ground water is much simpler and economical by keeping it segregated from the surface water. Certainly this strategy is preferable due to the benefits of lowest cost and efficiency of facility utilization.

Greensburg has alternatives that will enable it access to ground water supplies at locations away from the City of Greensburg. Ground water is available along the White River from Edinburgh south to Seymour. Ground water is available at the Whitewater River from Metamora south to I-74. In all cases there are existing rural water companies situated between Greensburg and these ground water sources. The potential alternatives that could produce sources of ground water for the City of Greensburg are as follows:

1. Purchase treated water from Jennings Water, Inc.
2. Purchase treated water from Eastern Bartholomew Water Co.
3. Purchase treated water from Hoosier Hills Regional Water District  
Water Company
4. Construct a well field and treatment plant along White River
5. Construct a well field and treatment plant along Whitewater River

A new Honda automobile assembly factory is currently in the process of being constructed. Production is planned to commence in the year 2008. The result of a manufacturing facility of this magnitude will certainly create increased demand for water. Other economic activity such as residential, commercial, industrial and institutional will

develop as the direct result of the Honda manufacturing plant. The City of Greensburg is in the process of expanding their water supply to satisfy that pending growth.

#### TOWN OF WESTPORT

The Town of Westport is located on S.R. 3 between the City of Greensburg and the City of North Vernon. Westport utilizes surface water to provide their water needs. Surface water is removed from Sand Creek and pumped to a holding reservoir. Westport constructed a package surface water treatment plant approximately 30 years ago. This plant is a mixed media water treatment plant that was originally designed to provide the optimum amount of chemicals to produce high quality finished water. Westport has a surface water treatment plant because that is the only water source available to the town.

Officials of the Town of Westport have advised that Westport is considering improvements to their surface water treatment plant. These improvements are for the purpose of meeting higher water quality standards mandated by USEPA and to upgrade certain components of the water treatment plant to current day standards. Westport typically produces from 140,000 gallons per day to 160,000 gallons per day.

The Town of Westport has water available from the following water utilities:

1. Jennings Water, Inc.
2. Decatur County Rural Water Company

Should Jennings Water, Inc. connect with the City of Greensburg, connection of Westport is easily accomplished. Should Jennings Water, Inc. not connect to the City of Greensburg, connection to Jennings Water, Inc. of Westport would require construction of approximately 37,000 feet of water transmission main and construction of a new water booster station. Westport's elevated water storage tank has a high water elevation of

approximately 940 msl and Jennings Water's elevated water storage tank has a high water elevation of approximately 870 msl. Therefore, a water booster station would be required to deliver water from Jennings Water to Westport.

The Town of Westport could connect to Decatur County Rural Water at the South Decatur High School and construct 14,000 feet of water transmission main. A booster station would not be required because the Decatur County Rural Water Company elevated water storage tank has a high water elevation of 950 msl which is substantially higher than Westport's elevated water storage tank. A solenoid valve would be required to prevent overflow of the Westport elevated tank. The ability of Decatur County Water Company to sell wholesale water to the Town of Westport would be dependent upon their ability to increase their ability to purchase water from the City of Greensburg.

#### RIPLEY COUNTY, JENNINGS COUNTY AND DECATUR COUNTY WATER UTILITIES

##### GROUND WATER SUPPLIES

##### JENNINGS WATER, INC.

An overall description of Jennings Water, Inc. is provided earlier in this section.(pg. 1-4) In approximately 1978 Jennings Water, Inc. resulted from the merger of two small rural water companies. At that time both utilities purchased water from the City of North Vernon. Jennings Water, Inc. was formed so that the surviving utility would have a greater customer base and would be able to aggressively expand the waterworks. The objective of expansion is demonstrated in that Jennings Water doubled in quantity of customers served in the twenty years prior to the year 2000.

Jennings Water recognized their aggressive expansion plans could not be accomplished with the limited supply of water available from the City of North Vernon. This prompted Jennings Water to locate and develop a well field in the aquifer adjacent

to White River just north of the community of Reddington. Since 1978 Jennings Water has constructed five (5) gravel wall wells in the sand and gravel formation along White River. Each of these wells produced approximately 1,000 gallons per minute or 1.5 million gallons per day. Raw water from these wells contains from 1.0 to 3.0 parts per million of iron and a trace of manganese. Also, the hardness level in these wells is approximately 420 ppm. Originally, Jennings Water constructed a water treatment plant to remove iron and manganese but not change the hardness concentration.

In approximately 1994, Jennings Water modified the iron removal water plant to a water softening plant. This type of water treatment plant removes the calcium hardness and not the magnesium hardness. Iron and manganese are oxidized in the process and both iron oxide and manganese oxide are removed by filters. In 2006 the water softening plant was increased in capacity from 1,000 gallons per minute to 2,000 gallons per minute. Water softening is accomplished in a cone shaped vessel containing sand and raw water. The pH of the raw water is increased from approximately 7.2 to 9.0 by the addition of sodium hydroxide to the base of the catalytic reactor. The temporary hardness becomes unstable at elevated pH and plates out on the grains of sand. Currently Jennings Water, Inc. is treating from a minimum of 900,000 gallons per day to a maximum of 1,200,000 gallons per day. The catalytic reactor can be operated in a range of 80% to 120% of its rated capacity. Jennings Water currently has a surplus of water available on a daily basis of approximately 1,500,000 gallons per day. This is because the water plant constructed in 2006 and 2007 was designed for a 20-year planning horizon.

Jennings Water, Inc. purchased 13.2 acres for their well field in 1978. An additional 19.62 acres of land, adjacent to the 13.2 acres was purchased in 2002. Test drilling performed on the new well field produced wells of identical depth, sand and

gravel thickness. All existing wells are in the original 13.2 acre well field and the adjacent 19.62 acres is available for well installation.

Jennings Water sells water to Jennings Northwest Regional Utilities. This utility serves water primarily within the boundaries of the Country Squire Lakes subdivision. Jennings Water sold water to Country Squire Lakes Utilities prior to Jennings Northwest's acquisition of Country Squire Utilities.

#### HOOSIER HILLS REGIONAL WATER DISTRICT

Hoosier Hills Regional Water District is the same utility that was formerly known as Elrod Water Company. This water utility originally purchased treated water from the Town of Osgood. Hoosier Hills Regional Water District also took an aggressive position with respect to water service and expanded to serve many residential rural water customers. With their increase in number of customers, it became apparent to Hoosier Hills Regional Water District that a new source of water supply and water treatment was necessary.

In approximately 1996, Hoosier Hills Regional Water District purchased land along the west side of the Whitewater River in Franklin County. This location is south of the Town of Brookville. Hoosier Hills Regional Water District has high capacity gravel pack water supply wells. These wells are located in sand and gravel aquifer capable of producing from 700 to 1,200 gallons per minute. Water from this well field is hard and contains iron with a small amount of manganese. Hoosier Hills Regional Water District elected to construct a 1,000 gallon per minute iron removal plant. This water treatment plant does not remove hardness. Their well field on the Whitewater River is in a location that could be expanded to produce more raw water. Also, a portion of Hoosier Hills Regional Water District water system extends easterly to an area that is relatively close

to the Ohio River. This would allow Hoosier Hills Regional Water District to construct water supply wells in the ground water aquifer along the Ohio River.

Hoosier Hills Regional Water District serves a very large service area that extends from Metamora on the north to south of U.S. 50 on the south and west to S.R. 129 and east to Penntown in Dearborn County. Hoosier Hills Regional Water District serves water to the east side of the City of Batesville, and on all sides of the Town of Sunman. They also provide water south of Batesville and along the east side of the Town of Osgood. Hoosier Hills Regional Water District Water sells water wholesale to the following water customers:

1. North Dearborn Water Company
2. Town of Milan

#### TOWN OF SUNMAN

The Town of Sunman has owned and operated a municipal waterworks since the year 1950. The Town of Sunman generally serves water only within the town limits of Sunman. Transportation to Sunman is provided from I-74 and S.R. 101. Sunman is the easternmost town in the three-county area. Therefore, Sunman receives some growth from the City of Cincinnati. Sunman has experienced population growth in each of the past five decades.

Sunman is unique in that they have ground water wells. The Sunman well field is located in a sand and gravel formation not connected to a major aquifer. This confined aquifer has allowed Sunman to operate a 275 gallons per minute iron removal water treatment plant. This aquifer is very small in size. Efforts have been made to trace this aquifer by drilling test wells at points around the aquifer. Essentially, the aquifer is very localized. The water plant is capable of producing 396,000 gallons per day. Actual water consumption of the Town of Sunman is substantially less than 396,000 gallons per



day. The water treatment process for Sunman consists of aeration, detention, filtration, chlorination and fluoridation.

Sunman is a self-sufficient utility capable of taking care of its own needs. They have a limited supply of water that lacks the ability to expand to serve a larger area. In the absence of a major growth in water demand, there is no need for Sunman to change their present mode of operation.

#### SUMMARY OF WATER UTILITY DATA IN THREE-COUNTY AREA

The following is a list of water utilities in the three-county area that produce water from a surface water source:

#### SURFACE WATER SOURCE

<u>UTILITY NAME</u>	<u>MAX. DAILY CAPACITY</u>
1. City of Batesville.....	2,100,000 gallons/day*
2. City of Greensburg.....	2,000,000 Gallons/day*
3. City of North Vernon.....	1,500,000 Gallons/day*
4. Town of Osgood.....	1,500,000 gallons/day
5. Town of Versailles.....	1,000,000 gallons/day
6. Town of Westport.....	288,000 gallons/day*
7. Lake Santee.....	288,000 gallons/day
8. Muscatatuck Urban Training Center .....	288,000 gallons/day*

\* estimate based on past records or information

The Town of Versailles and Lake Santee waterworks are both recently constructed surface water treatment plants.

The following is a list of water utilities in the three-county area that produce water from a ground water source:

**GROUND WATER FROM A WELL FIELD**

<u>UTILITY NAME</u>	<u>MAX. DAILY CAPACITY</u>
1. Jennings Water, Inc.	3,000,000 gallons/day
2. City of Greensburg	2,000,000 gallons/day*
3. Town of Sunman	396,000 gallons/day
4. Hoosier Hills Regional Water District	1,500,000 gallons/day*

\*Estimate

The Jennings Water, Inc. water supply well field is in excellent production capability and the water treatment plant was put on-line in the spring of 2007. The City of Greensburg ground water plant is about to commence construction and should be placed on-line in the spring of 2008. The Hoosier Hills Regional Water District water treatment plant and well field were built in the mid 1990s. Hoosier Hills Regional Water District has the ability to produce more water from their existing well field or develop a new well field on the Ohio River.

The following water utilities in the three-county area purchase water from the following water suppliers:

<u>NAME OF UTILITY PURCHASING WATER</u>	<u>NAME OF UTILITY SUPPLYING WATER</u>
1. Hayden Water Company.....	City of North Vernon
2. Burnt Pines Water Company.....	City of North Vernon
3. Town of Vernon.....	City of North Vernon
4. Napoleon Community Rural Water.....	Town of Osgood
5. Holton Water Company.....	Town of Osgood
6. Town of Oldenburg.....	City of Batesville
7. Decatur County Rural Water.....	City of Greensburg
8. Jennings Northwest Regional Utilities.....	Jennings Water, Inc.
9. Town of Milan.....	Hoosier Hills Regional Water District
10. Versailles State Park.....	Town of Versailles

#### IV. BENEFITS BEING PROVIDED TO ONE OR MORE OR A PORTION OF THE COUNTIES IN THREE COUNTY REGION

The water issues that confront each of the utilities in Jennings, Ripley and Decatur Counties are consistent for each utility. The only difference in the utilities is the timing of when they are impacted by the issue. Each utility may have a strong quality today in terms of their water source, water treatment, water transmission or water storage. However, as the utility ages those strong qualities will diminish. Therefore, any water supply strategy should provide flexibility in planning to address water supply issues in the entire three-county area.

The initial thrust of improvements should emphasize supplying water to the areas most impacted by the new Honda automobile assembly plant. This will allow the limited

water resources that are available today to be made available to the areas of maximum need. In the first stages actions should be taken to maximize movement of available water to locations where there are existing or potential water deficiencies. This action will be implemented in a manner that complement and deliver water sources developed in future improvements.

An economical and beneficial objective of the first phase should be to develop interconnections between existing utilities where feasible. Each water utility has unique hydraulic characteristics that must be addressed. Merely connecting distribution systems doesn't produce a pair of utilities that can benefit from the connection.

V. COST ASSOCIATED WITH WHOLESALING WATER TO VARIOUS PARTS OF  
THREE-COUNTY AREA AND RATES TO INDIVIDUAL CUSTOMERS

The cost structure associated with the production and delivery of water is too complex to provide meaningful cost structures in the absence of extensive details. However, this issue can be accommodated in a conceptual manner. The cost structure of a water works essentially composed of the three cost components as follows:

1. Debt retirement associated with waterworks improvements
2. Cost of operation and maintenance of waterworks improvements
3. Depreciation costs for assets comprising the waterworks

The cost of water production and delivery is very dependent upon the cost of the assets and the level of productive capacity at which the asset is being operated. Both debt retirement and depreciation are essentially fixed costs. Practically no managerial action can change the cost of debt retirement or the cost of depreciation. These two costs affect the cost per 1,000 gallons of water totally based on the total gallons of water sold. Economies of scale become readily apparent when planning for a water utility.

The greatest benefits in terms of lower water cost occur when water production increases.

Economies of scale also become important in sizing the initial waterworks improvements. The unit cost of waterworks capacity generally decreases with the size of the facility. On a cost per 1,000 gallons basis the large water production facility will have a lesser cost than a small water production facility. All the major components of a water production facility decrease as the capacity of the production facility increases.

Economies of scale in the size of production facilities and in the demand for water work together to complement each other. Therefore, the ideal waterworks design would plan for future capacity but construct that capacity in the future prior to its need. This will enable the utility to avoid the heavy fixed cost of carrying unused production capacity. Phased planning is essential to the lowest short-term and long-term water cost.

#### VI. FAMILIARITY OF RESPONDENT WITH CRITERIA, RULES, REGULATIONS AND STATUTES PERTAINING TO PROPOSED PLAN AND VIABLE SOLUTIONS

The applicant is a corporation owned by the membership which is comprised of the water customers. Ownership of a membership confers upon a water customer the right of a stockholder of the corporation. Consequently, management of Jennings Water, Inc. is accomplished by a Board of Directors that are elected by the membership of the corporation. Positions on the Board of Directors run for a period of time and expire. Each year a certain number of board member positions are up for vote at the annual meeting of the corporation. All members of the corporation have equal opportunity to participate, nominate and vote for members of the Board of Directors. This method of establishing a board of directors is a totally democratic process.

The Board of Directors and the technical consultants are regularly engaged in various aspects of the criteria, rules, regulations and statutes that pertain to planning and implementing a plan for waterworks improvements. The following is a partial list of those applicable aspects of planning and implementation of waterworks improvements:

1. Preparation of a waterworks master plan
2. Periodic review and update of a waterworks master plan
3. Implementation of waterworks improvements demonstrated by master plan
4. Preparing annual and long term financial plans
5. Securing sources of finance for long-term financing
6. Interaction with local, state and federal government
7. Awareness of environmental matters relevant to waterworks operation or improvements
8. Awareness of regulatory rules and regulations that dictate standards for waterworks operation and improvements
9. Awareness of the State of Indiana and United States statutes governing the operation of a waterworks utility.
10. Awareness of the current and planned water quality standards
11. Awareness of the applicable standards for bidding of public works projects in The State of Indiana
12. Awareness of the requirement for and benefits from competitive bidding for major public works improvements
13. Awareness of the necessity to follow equal opportunity requirements in all aspects
14. Familiarity with the process of sealed bidding, contract award, insurance requirements, performance bonding and payment bonding
15. Familiarity with practices and procedures in maximizing quality of construction

16. Familiarity with documentation of all expenditures associated with public funds
17. Knowledge of responsibility to own and maintain assets secured with public funds
18. Ability to participate in planning processes involving state and federal agencies
19. Ability to follow policies and procedures established for public welfare
20. Ability to document expenditures and demonstrate compliance with procedures for expenditure of public funds
21. Document expenditures and maintain asset records in a manner that allows for audit

**VII. ABILITY TO MANAGE, COORDINATE AND REACT TO DIVERSE INTERESTS OF EXISTING WATER UTILITIES IN MULTIPLE COUNTIES**

The relevant area of water service consists of Jennings County, Ripley County and Decatur County. These three counties are contiguous and constitute a relatively compact area. However, contained within this three-county area are many diverse and competing interests. The diversity of interests to be considered will be economic interests, environmental interests, land use interests, governmental interests, territorial interests, and cultural interests. Each of these interests must be afforded the freedom of expression, the willingness to understand. The ability to optimize the concerns and select the best mix of input of this diverse group of competing interests will be essential.

Jennings Water, Inc. currently serves the largest area in the three-county area. As the result of their ongoing operations, they currently deal with many diverse interests. The experience gained by Jennings Water, Inc. over the past 30 years will serve as a fundamental guide in understanding and meeting the needs of the diverse interests in the three-county area.

Establishment of a regional water purveyor demonstrates a sense of urgency and common purpose. Further, water is an essential component of life and prosperity. The degree of importance of this objective must elevate it above many less critical concerns. A water utility must maintain a single sense of focus which is to produce and deliver a quality water product in the quantity desired to their customers. To the extent that diverse interests are complementary to that process, they should be embraced.

Existing utilities that serve this large area should be contacted to discuss their experiences with diverse issues in the district. Utilization of previous experiences by other utilities will certainly be beneficial in addressing diverse issues in the three-county area. There are existing not-for-profit electric companies in the area that can offer guidance in terms of diverse interests and how they resolved such issues.

VIII. EXPERIENCE AND/OR THE CAPABILITY OF THE RESPONDENT IN BEING  
ABLE TO SUPPLY WATER TO ALL THREE COUNTIES.

Jennings Water, Inc. currently serves water in a very large area that includes portions of Jackson County, Ripley County, and Decatur County. Jennings Water is familiar with the process of selling water in multiple adjacent counties. The concept of expanding that service area is understood and accepted as a normal part of water service.

Jennings Water is organized in a manner to provide water service to a large geographic area. There are many tools available to accomplish this task efficiently. Current day technology consisting of SCADA (System Communications and Data Acquisition) is one tool that allows a utility to oversee operations of a large service area. This state-of-the-art electronics equipment enables operations personnel of a utility to monitor system performance over a vast area. Alarms can be activated long before an operating condition becomes a crisis. Often, corrective action can be remotely



implemented by the push of a button. In other cases early warning can inform operations personnel so they can organize and execute the best course of action ahead of the crisis. Design of the SCADA system must be customized to anticipate those operational problems that have the highest probability of occurring.

Effective utilization of technology resources and efficient deployment of human resources should provide the best overall utility performance. Jennings Water has a staff of waterworks personnel and endeavors to utilize privatization of certain aspects of the waterworks. Costs associated with ownership of idle construction equipment and construction employees are avoided by contracting these services on an as-needed basis. Agreed charges for services and close supervision are essential in implementation of this aspect of the utility. Water service to a three-county area would certainly require a thorough understanding of the scope of services needed to provide proper customer service. Expansion of the service area would involve a total reassessment of the mission to determine the best mix of technology, privatization and utility-employed personnel.

#### IX. DEMONSTRATED EXPERIENCE IN DEVELOPING AND MANAGING A TIMELINE AND AN AGGRESSIVE SCHEDULE

Jennings Water, Inc. has completed several waterworks improvements over the past 30 years. There has been continuity of experience gained by the various Board of Directors over that 30-year period. Over 30 years the Board of Directors has experienced a vast array of challenges and concerns inherent in the operation of a utility. That experience gives them the foresight to perform comprehensive planning ahead of commencing an aggressive construction schedule.

Effective implementation of a comprehensive plan requires constant monitoring and evaluation of results. Again, the Board of Directors and their staff of technical professionals perform constant monitoring of all projects. Lines of communication are maintained during implementation of projects on an aggressive schedule. Clearly defined duties, responsibilities and authority of the various parties to a project can enable the Board of Directors to focus their management responsibilities in the proper direction.

Jennings Water, Inc. completed construction of a construction project exceeding \$5,000,000.00 in the spring of 2007. This project is a perfect example of the Board of Directors' ability to manage a timeline with an aggressive schedule. This project became fully manageable by the Board of Directors upon signing of the construction contracts with the three general contractors. Contracts included construction of a water supply well, construction of a water treatment plant and construction of a water transmission main. There were many variables contained in this construction project. This project followed the following timeline:

1. Execution of Construction Contract with three contractors.....July 13, 2006
2. Execute Certificate of Substantial Completion..... May 15,2007

In addition to managing the construction project time, the cost of the project was actually **reduced** from the original contract amount by \$32,700.00 or slightly less than one percent. Quality of the project was managed by employing a construction inspector under the direct supervision of the project design engineer. Daily inspection reports were prepared for the review of the Board of Directors. Special emphasis was placed on quality of construction product.

X. QUALITY, TIMELINESS, AND THOROUGHNESS OF THE RESPONSE  
SUBMITTED

Jennings Water, Inc. has been totally committed to demonstrating its interest in participating in providing water service to the three counties. Their interest in this matter commenced before issuance of this Request For Qualifications. Jennings Water, Inc. has expressed interest and offered assistance and information to participants in this process from its conceptual stage. It is the intent of Jennings Water to provide a quality response that is timely and comprehensive.

XI. CURRENT WORKLOAD AND COMPOSITION OF THOSE EMPLOYEES  
WHO WOULD WORK ON THE PROJECT.

Jennings Water has the entire team of professional support staff of accountants, attorneys, engineers and employees that performed a major waterworks improvement within the past year. This team of employees are totally organized and prepared to perform waterworks improvements. In addition, their professional staff of engineers, attorneys and accountants is intimately familiar with other waterworks utilities in the three-county area. The comprehensive detailed knowledge of the technical support staff of Jennings Water will enable them to expedite the project by starting immediately. Their intimate knowledge of the various activities allows for accelerated project implementation.

The law firm employed by Jennings Water, Inc. has detailed knowledge of Jennings Water, Inc. and the legal issues faces by Jennings Water, Inc. and other utilities in the area. The engineer employed by Jennings Water, Inc. has detailed knowledge of the following water utilities in the three-county area:

1. Hayden Water Company
2. Holton Water Company
3. Town of Versailles
4. Napoleon Community Water Association
5. Elrod Water Co. (certain aspects)

The firm of Robert E. Curry and Associates, Inc. was commissioned by the Ripley County Commissioners to perform an engineering report titled "WATERWORKS STUDY OF RIPLEY COUNTY 1989. Certain recommendations contained in that study were implemented. The process of performing research for that report has given Robert Curry, P.E., extensive knowledge of the sources of water, water treatment and water distribution in each of the water utilities in Ripley County.

The professional staff of Jennings Water, Inc. is regularly engaged in the performance of professional services to the waterworks industry. Therefore, they stand ready to accept engagements of this type and execute their outcome in a timely manner.

XII. EVIDENCE OF READINESS OF THE RESPONDENT TO BEGIN SUPPLYING WATER UPON RECEIVING NOTICE OF BEING THE SUCCESSFUL RESPONDENT

Jennings Water, Inc. currently has 1,500,000 gallons of water in excess of its immediate needs. In a relatively short time duration, Jennings Water estimates that its excess capacity could be utilized either directly or indirectly, through a cooperative effort with other utilities, to serve the following:

1. City of Greensburg
2. Muscatatuck Urban Training Center
3. Town of Vernon
4. Burnt Pines Water Company
5. Holton Water Company
6. City of North Vernon
7. Hayden Water Company

Jennings Water, Inc. owns well field land and readily available raw water source that is immediately expandable. This well field has a well field approval from the Indiana Department of Environmental Management and could have new wells constructed promptly. The raw water main from the well field to the water treatment plant was constructed in anticipation of increased pumpage. The existing water treatment plant has 1,500,000 gallons of excess capacity and has piping planned for the addition of an additional 1,500,000 gallons per day of capacity. Water production from the well field and water treatment plant could be expanded by 1,500,000 gallons per day in approximately 6 months of construction time.

Jennings Water, Inc. currently has 1,500,000 gallons of water in excess of their immediate needs and the capability to expand their capacity by 1,500,000 gallons within 6 months. With the construction of new water transmission mains Jennings Water estimates that its excess capacity could be utilized either directly or indirectly, through a **cooperative effort** with other utilities, to serve the following water utilities in addition to those listed above:

1. City of Greensburg
2. Town of Westport
3. Muscatatuck Urban Training Center
4. Town of Versailles
5. Decatur County Rural Water
6. Napoleon Rural Water Association
7. City of Batesville
8. City of North Vernon

The degree of expediency with which these improvements could be made would be based on many variables outside the control of Jennings Water, Inc. However, through a cooperative effort the improvements could be made in a minimum of time.

The first expansion of the Jennings Water, Inc. water treatment would result in a plant capacity of 4,500,000 gallons per day. For planning purposes it is estimated that

an additional 5,000,000 gallons per day water supply could be developed by Jennings Water, Inc.

XIII. RESPONDENT QUALIFICATIONS AS A MINORITY-OWNED OR WOMEN-OWNED FIRM

Respondent Jennings Water, Inc. is a not-for-profit rural water corporation that typically is not operated by a minority-owned or women-owned firm. However, Jennings Water is supportive and cooperative in participation with such firms.

## **SECTION II**

### **NEAR-TERM WATERWORKS ALTERNATIVE**

#### **GENERAL**

The characteristics of near-term waterworks improvements should be based on the following criteria:

1. Identification of water service area with most urgent near term water needs
2. Identification of utility with immediately available water supply
3. Identification of utility that has the immediately available water distribution system to implement portions of a regional water supply.

#### **PROPOSAL OF JENNINGS WATER, INC.**

Jennings Water, Inc. has the qualifications to improve the availability and delivery of water and provide a prompt response to the near-term water supply water needs of the three-county area. They also have the water supply resources and capability to expand their water production capability to add an additional 1,500,000 gallons per day in a prompt manner. Jennings Water could provide 3,000,000 gallons per day of water as a combination of the 1,500,000 gallons per day immediately available plus 1,500,000 gallons per day that could be placed on line in a very short time duration. Jennings Water, Inc. has reviewed the overall near-term water supply needs of the three-county area. Based on this review it is believed that Jennings Water, Inc. has the ability to assist in the resolution of near-term water needs of the three-county area.

The proposal for improvements consists of recommended alternatives offered by Jennings Water to address near-term water supply in the three-county area. Prioritization of these alternatives must be made after extensive evaluation of financial and technical data relevant to each alternative.

## **ALTERNATIVE "A"**

### **WATER SERVICE TO CITY OF GREENSBURG & TOWN OF WESTPORT**

The City of Greensburg is anticipated to have increasing near-term and long-term water capacity needs. Certainly, the City of Greensburg is addressing those capacity needs by implementing the most desirable alternatives available. Greensburg has a number of constraints to increasing their water production capabilities. The marginal cost of increasing the incremental water supply for the City of Greensburg is expected to increase over time. Cost of future waterworks capital improvements for Greensburg will escalate due to elimination of least costly alternatives.

The Town of Westport is a small town that historically has grown at a very moderate pace. At this time Westport has near-term water supply issues relating to meeting Indiana Department of Environmental Management water quality issues. Also, Westport has an old water treatment plant that will necessitate major capital expenditures to meet current waterworks standards. Retiring the existing Town of Westport surface water treatment plant would be a viable alternative due to its age and condition.

Alternative "A" consists of constructing a new water transmission main from the Jennings Water, Inc. distribution system to the City of Greensburg water distribution system. The point of connection of Jennings Water to Greensburg would be at the Intersection of S.R. 46 and S.R. 3. Initially a water main and booster station would be



constructed to transmit and pump water from Jennings Water to Greensburg. The new water main is proposed to be constructed parallel to S.R. 3 from C.R. 500 North in Jennings County to S.R. 46 in Decatur County. This water transmission main will pass through the Town of Westport in route to Greensburg. Therefore, the Town of Westport could conveniently be served by the proposed water transmission main.

Alternative "A" offers a total near term and long term water supply alternative to the Town of Westport and a supplementary water supply alternative to the City of Greensburg. Alternative "A" is divided into three phases to provide water to the City of Greensburg in a manner that will be most cost beneficial. This method of implementing Alternative "A" will result in scheduling waterworks improvements and capital expenditures in the most economical manner. Each of the three phases in Alternate "A" will produce an increased amount of water to the City of Greensburg and the Town of Westport. The following is the proposed volumes of water to be produced by each phase of Alternative "A".

ALTERNATIVE "A"

WATER SUPPLY TO CITY OF GREENSBURG AND TOWN OF WESTPORT

<u>PHASE</u>	<u>ADDITIONAL CAPACITY</u>	<u>TOTAL CAPACITY</u>	<u>ESTIMATED COST</u>
1	1,500,000 gal/day	1,500,000 gal/day	\$ 6,352,000
2	1,500,000 gal/day	3,000,000 gal/day	\$ 2,042,000
3	2,000,000 gal/day	<u>5,000,000 gal/day</u>	<u>\$ 5,176,000</u>
	Totals	5,000,000 gal/day	<u>\$13,570,000</u>

## ALTERNATIVE "A" RELEVANT HYDRAULIC CONSIDERATIONS

Each water utility possesses certain unique hydraulic characteristics. These unique characteristics must be accommodated to accomplish a successful transfer of water from one utility to another. A primary consideration is the elevation of the high water level in elevated water storage tanks in each utility. The overflow elevation at each elevated water tank determines the maximum static water pressure in a water distribution system. A comparison of the high water elevation in the City of Greensburg and the Town of Westport's elevated water storage tank to the high water elevation in Jennings Water, Inc.'s. elevated water storage tank is as follows:

### COMPARISON OF ELEVATED TANK HIGH WATER ELEVATIONS

#### JENNINGS WATER, INC., TOWN OF WESTPORT & CITY OF GREENSBURG

<u>WATER UTILITY</u>	<u>TANK HIGH WATER ELEVATION</u>
City of Greensburg	1100 msl
Town of Westport	940 msl
Jennings Water, Inc.	870 msl

The above table reveals that a significant difference exists in the elevated water storage tank high water elevations in each of the three utilities. This difference in elevation in the elevated water storage tanks plus friction in the 18" water transmission main will dictate the need for a water booster station. The maximum of 230 feet of elevation difference, between the City of Greensburg and Jennings Water, will remain a constant regardless of the volume of flow from the point of connection to the point of delivery. However, the friction loss in the pipeline will be a function of the rate of water flow in the 18" diameter water transmission main.

Location of the water booster station should take advantage of the source of supply water pressure. The source of water supply water pressure should be allowed to drop to an acceptable pressure on the suction side of the water booster station. For purposes of planning, the water booster station should have an ultimate maximum flow rate of 5,000,000 gallons per day.

The intersection of S.R. 3 and C.R. 800 North is an ideal location for a new water booster station to accommodate a range of flows from 1.5 MGD to 5.0 MGD. This location has a ground elevation of 726 msl and an approximate static suction pressure of 62 psi. This location is 15,850 feet from the point of connection with the existing 12" ductile iron water main. Using PC 300 D.I. water main would result in a suction side pressure of 45 psi.

The distance from the intersection of C.R. 800 North and S.R. 3 to the intersection of S.R. 3 and S.R. 46 is estimated to be approximately 85,000 feet. Using a design flow of 5.0 MGD flowing through 85,000 feet of PC 300 Ductile Iron water transmission main the friction loss would be 213 feet. Therefore, at 5,000,000 gallons per day the new booster station would have to add the following maximum total dynamic head:

Elevation lift + Suction friction + Discharge friction = Total Dynamic Head

$$230' + 40' + 213' = 483' = 209 \text{ psi}$$

Discharge pressure at the proposed water booster station when producing 5.0 MGD would be 254 psi.

## ALTERNATIVE "A" – PHASE ONE DESCRIPTION

Jennings Water, Inc. has an excess daily volume of finished water of approximately 1,500,000 gallons. The objective of Phase One is to construct waterworks components that will deliver this 1.5 MGD volume of water to a point of connection with the City of Greensburg at the intersection of S.R. 3 and S.R. 46. The optimum point of connection to the Jennings Water, Inc. water distribution system is the intersection of C.R. 500 North and S.R. 3.

Based on relevant hydraulic considerations, a new water booster station is recommended to be constructed at the intersection of C.R. 800 North and S.R. 3. This water booster station would initially deliver 1.50 MGD to the intersection of S.R. 46 and S.R. 3. A new 18" diameter ductile iron water transmission main is recommended to be constructed from the intersection of C.R. 500 North and S.R. 3 in Jennings County to the intersection of S.R. 3 and S.R. 46 in Decatur County. The proposed 18" water main will be capable of providing the initial flow of 1.5 MGD and can accommodate the future flow of 5.0 MGD.

If in the future water demand exceeds 5.0 MGD, there are waterworks improvements that can be made to carry greater than 5.0 MGD. With future water distribution system improvements, the flow of water to Greensburg or other utilities can be increased to flows substantially greater than 5.0 MGD. The total length of the new 18" diameter ductile iron water main is estimated to be 101,000 feet. The proposed water main route for the new 18" water main would be parallel to S.R. 3 for the entire length.

## ALTERNATIVE "A" – PHASE TWO DESCRIPTION

The proposed Alternative "A" - Phase Two waterworks improvements are for the purpose of increasing flow from Jennings Water, Inc. to the City of Greensburg from 1.5 MGD to 3.0 MGD. Currently Jennings Water, Inc. has an excess capacity of 1.5 MGD. Therefore, expansion of the JWI water treatment plant will be required to provide a 100% increase in flow from 1.5 MGD to 3.0 MGD to the City of Greensburg.

There is an existing section of 12" SDR 21 PVC water main located between S.R. 7 and S.R. 3. A 20" D.I. water main connects to the 12" SDR 21 PVC water main and extends to the new water treatment plant. To accommodate the increased flow, it will be necessary to construct a new 20" D.I. water main from S.R. 7 to S.R. 3 parallel to the existing 12" PVC water main.

The JWI existing water treatment plant is rated at 2,000 gpm and there are four wells that provide raw water to the water treatment plant. The water supply well field has two wells rated at 1,000 gpm and two wells that combine to produce 1,000 gallons per minute. With the best well out of service, the water supply well field can produce the total capacity of the water treatment plant. With expansion of the water treatment plant to 3,000 gpm it will be necessary to increase the well field production capacity by adding one new water supply well.

The 18" ductile iron water transmission main constructed in Phase "1" would be utilized and experience a flow increase from 1.5 MGD to 3.0 MGD. Waterworks improvements required to implement Alternative "A" - Phase Two Improvements consist of the following:

1. Construct 14,000 L.F. of 20" D.I. water main from S.R. 7 to S.R. 3
2. Add one additional 1,000 gpm water supply well
3. Add one additional 1,000 gpm catalytic reactor to water plant
4. Add one additional 1,000 gpm horizontal pressure filter
5. Replace & supplement 2 high service pumps with 1,800 gpm pumps
6. Replace water transfer pump in WTP with 1,000 – 3,000 gpm pump
7. Add additional stages to two Phase One booster station pumps
8. Add one additional 1,000 gpm to Phase One water booster station

#### ALTERNATIVE "A" – PHASE THREE DESCRIPTION

The Phase Three waterworks improvements are for the purpose of increasing flow from Jennings Water, Inc. to the City of Greensburg from 3.0 MGD to 5.0 MGD. Alternative "A" - Phase Two Waterworks Improvements were for the purpose of upgrading the existing JWI water treatment plant so that capacity would be increased from 1.5 MGD to 3.0 MGD. Expansion of the existing JWI water treatment plant as proposed in Phase Two will place the existing plant at its maximum capacity. In order to increase water flow from JWI to the City of Greensburg it will be necessary construct a new water treatment plant near the existing water treatment plant site. The new water treatment plant will be required to provide a 66% increase in flow from 3.0 MGD to 5.0 MGD.

Waterworks improvements required to implement Phase Three Improvements consist of the following:

1. Construct three (3) new 1,000 gpm water supply wells
2. Construct a new 2,400 gpm water treatment plant
3. Pumping modifications to water booster station constructed in Phase One and modified in Phase Two.

COST ESTIMATE  
ALTERNATE "A"  
PHASE "1"



**ALTERNATE "A" - PHASE ONE**  
**PRELIMINARY PROJECT COST ESTIMATE**  
**NEW BOOSTER STATION & 18" D.I. WATER MAIN**  
**INTERSECTION OF C.R. 500 NORTH AND S.R. 3 IN JENNINGS COUNTY**  
**TO**  
**INTERSECTION OF S.R. 46 AND S.R. 3 IN DECATUR COUNTY**

ITEM NUMBER	ITEM DESCRIPTION	UNITS	QUANTITY	UNIT PRICE	TOTAL PRICE
1	1,000 GPM BOOSTER STATION EXPANDABLE TO 3,500 GPM	L.S.	1	\$275,000.00	\$275,000.00
2	PUMP CONTROL TELEMTRY	L.S.	1	\$28,000.00	\$28,000.00
3	LAND FOR BOOSTER STATION (PLUS)	L.S.	1	\$17,000.00	\$17,000.00
4	18" P.C. 350 D.I. WATER MAIN	L.F.	101,000	\$41.00	\$4,141,000.00
5	CONNECTIONS TO EXISTING WATER MAINS	EACH	1	\$6,000.00	\$6,000.00
6	SURFACE RESTORATION	L.S.	1	\$75,000.00	\$75,000.00
7	SPECIAL CREEK CROSSINGS	EACH	15	\$15,000.00	\$225,000.00
8	SPECIAL ROAD CROSSINGS	EACH	26	\$9,500.00	\$247,000.00
9	STANDARD FIRE HYDRANT & AUX. VALVE	EACH	25	\$2,200.00	\$55,000.00
10	DUCTILE IRON R.S.M.J. FITTINGS	L.S.	1	\$180,000.00	\$180,000.00
TOTAL ESTIMATED CONSTRUCTION COST					\$5,249,000.00
CONSTRUCTION CONTINGENCY (7%):					\$367,430.00
NON-CONSTRUCTION COSTS (14%):					\$734,860.00
TOTAL ESTIMATED PROJECT COST					\$6,351,290.00

COST ESTIMATE  
ALTERNATE "A"  
PHASE "2"

**ALTERNATE "A" - PHASE TWO**  
**PRELIMINARY PROJECT COST ESTIMATE**

1,000 GPM WATER WELL  
1,000 GPM ADDITION TO WATER TREATMENT PLANT  
NEW 20" D.I. WATER MAIN FROM S.R. 3 TO S.R. 7

ITEM NUMBER	ITEM DESCRIPTION	UNITS	QUANTITY	UNIT PRICE	TOTAL PRICE
1	NEW 1,000 GPM WATER SUPPLY WELL	L.S.	1	\$160,000.00	\$160,000
2	YARD PIPING FOR NEW WELL	L.S.	1	\$25,000.00	\$25,000
3	AUTOMATIC CONTROLS FOR NEW WELL	L.S.	1	\$15,000.00	\$15,000
4	NEW 1,000 GPM CATALYTIC REACTOR	EACH	1	\$120,000.00	\$120,000
5	NEW 1,000 GPM TO 3,000 GPM TRANSFER PUMP	EACH	1	\$40,000.00	\$40,000
6	NEW 1,000 GPM HORIZONTAL PRESSURE FILTER	L.S.	1	\$205,000.00	\$205,000
7	HIGH SERVICE PUMP MODIFICATION	EACH	2	\$50,000.00	\$100,000
8	CHEMICAL FEED EQUIPMENT MODIFICATION	EACH	1	\$40,000.00	\$40,000
9	WATER PLANT PIPING MODIFICATIONS	L.S.	1	\$35,000.00	\$35,000
10	20" PC 350 D.I. WATER TRANSMISSION MAIN	L.F.	14,000	\$53.00	\$742,000
11	ADD STAGES TO TWO BOOSTER STATION PUMPS	L.S.	1	\$25,000.00	\$25,000
12	ADD NEW 1,000 GPM WATER BOOSTER PUMP	L.S.	1	\$30,000.00	\$30,000
13	BUILDING ADDITION TO WATER TREATMENT PLANT	L.S.	1	\$150,000.00	\$150,000
TOTAL ESTIMATED CONSTRUCTION COST					\$1,687,000
CONSTRUCTION CONTINGENCY (7%)					\$118,090
NON-CONSTRUCTION COSTS (14%)					\$236,180
TOTAL ESTIMATED PROJECT COST					\$2,041,270

COST ESTIMATE  
ALTERNATE "A"  
PHASE "3"

ALTERNATE (A) - PHASE THREE  
PRELIMINARY PROJECT COST ESTIMATE  
3 - 1,000 GPM WATER WELLS  
1 - 3.5 MGD WATER TREATMENT PLANT  
WATER BOOSTER STATION MODIFICATION

ITEM NUMBER	DESCRIPTION	UNITS	QUANTITY	UNIT COST	TOTAL COST
1	1,200 GPM CATALYTIC REACTOR	EACH	2	\$135,000	\$270,000
2	1,200 GPM HORIZONTAL PRESSURE FILTERS	EACH	2	\$270,000	\$540,000
3	RECARBONATION TANKS	EACH	2	\$80,000	\$160,000
4	1,200 GPM HIGH SERVICE PUMPS	EACH	3	\$30,000	\$90,000
5	0 - 2,400 GPM TRANSFER PUMPS	EACH	2	\$20,000	\$40,000
6	FILTER BACKWASH WATER PUMPS	EACH	1	\$22,000	\$22,000
7	CHLORINATION SYSTEM	EACH	1	\$25,000	\$25,000
8	CHLORINE LEAK DETECTOR	EACH	1	\$8,000	\$8,000
9	CARBON DIOXIDE STORAGE & FEED SYSTEM	EACH	1	\$120,000	\$120,000
10	STANDBY POWER GENERATOR (PLANT & FIELD)	EACH	1	\$145,000	\$145,000
11	PH CONTROL PROBES FOR SODIUM HYDROXIDE	EACH	1	\$30,000	\$30,000
12	WATER PLANT ELECTRICAL & LIGHTING	EACH	1	\$70,000	\$70,000
13	MOTOR CONTROL CENTER	EACH	1	\$85,000	\$85,000
14	AUTOMATIC CONTROL CIRCUITS	LUMP SUM	1	\$65,000	\$65,000
15	YARD PIPING AND VALVES	EACH	1	\$150,000	\$150,000
16	PRE-ENGINEERED STEEL & MASONRY BUILDING	LUMP SUM	1	\$650,000	\$650,000
17	WATER PLANT PIPING AND VALVES	EACH	1	\$150,000	\$150,000
18	SITE WORK	LUMP SUM	1	\$45,000	\$45,000
19	RESTROOM	EACH	1	\$9,000	\$9,000
20	LABORATORY EQUIPMENT	LUMP SUM	1	\$30,000	\$30,000
21	AIR COMPRESSOR AND PIPING	LUMP SUM	1	\$40,000	\$40,000
22	DRIVES AND SIDEWALKS	LUMP SUM	1	\$50,000	\$50,000
23	TELEMETRY MODIFICATION	LUMP SUM	1	\$40,000	\$40,000
24	CATALYST HANDLING FACILITIES	LUMP SUM	1	\$70,000	\$70,000
25	HVAC SYSTEM	LUMP SUM	1	\$25,000	\$25,000
26	DEHUMIDIFICATION EQUIPMENT	LUMP SUM	1	\$40,000	\$40,000
27	PAINTING	LUMP SUM	1	\$80,000	\$80,000
28	BACKWASH WATER POND & PIPING	LUMP SUM	1	\$105,000	\$105,000
29	SODIUM FLUORIDE FEED EQUIPMENT	LUMP SUM	1	\$28,000	\$28,000
30	SITE FENCING	LUMP SUM	1	\$55,000	\$55,000
32	1,200 GPM WATER WELLS	EACH	3	\$160,000	\$480,000
33	WELL FIELD RAW WATER PIPING	LUMP SUM	1	\$250,000	\$250,000
34	WELL FIELD ELECTRICAL & CONTROLS	LUMP SUM	1	\$180,000	\$180,000
35	5 ACRES OF LAND FOR WATER TREATMENT PLANT	LUMP SUM	1	\$50,000	\$50,000
36	ADD STAGES TO 3 EXISTING BOOSTER PUMPS	EACH	3	\$10,000	\$30,000
37	INSTALL 2 - 1,200 GPM BOOSTER STATION PUMPS	EACH	2	\$25,000	\$50,000
TOTAL ESTIMATED CONSTRUCTION COSTS					\$4,277,000
CONSTRUCTION CONTINGENCY (7%)					\$299,390
NON-CONSTRUCTION COSTS (14%)					\$598,780
TOTAL ESTIMATED PROJECT COST					\$5,175,170

### **SECTION III**

#### **LONG TERM WATERWORKS IMPROVEMENTS ALTERNATIVE**

##### **ALTERNATIVE "B"**

**WATER SERVICE TO DECATUR COUNTY RURAL WATER COMPANY,  
MUSCATATUCK URBAN TRAINING CENTER, NAPOLEON WATER COMPANY,  
HOLTON WATER COMPANY, AND TOWN OF VERSAILLES**

Jennings Water, Inc. has the capability to extend their water distribution system to the east. A water main extension to the east would make water service available to several existing towns and rural water companies in Jennings County, Ripley County and Decatur County. Extending a water transmission main east from North Vernon in Jennings County to Versailles in Ripley County would make water available to the following utilities in Ripley County, Decatur County and Jennings County:

##### **UTILITIES SERVED DIRECTLY BY ALTERNATIVE "B"**

###### **JENNINGS COUNTY**

Muscatatuck Urban Training Center

###### **RIPLEY COUNTY**

Holton Water Company

Town of Versailles

Napoleon Community Water Co.

UTILITIES SERVED THROUGH OTHER UTILITIES  
BY ALTERNATE "B"

RIPLEY COUNTY

Town of Osgood via Holton Water Co.

DECATUR COUNTY

Decatur County Water Co. via Napoleon Community Water Co.

The proposed Alternative "B" water main would carry water from Jennings Water, Inc.'s. water distribution system east to the Town of Versailles. The proposed water transmission main would commence at the intersection of C.R. 500 North and C.R. 75 West in Jennings County and in Phase Three end at the intersection of Hopewell Road and U.S. 421 in Ripley County.

Initially, Jennings Water, Inc. could utilize their existing 1,500,000 gallons of water per day to supply to the three-county area. When that capacity is fully utilized, it is proposed to complete the build-out of the existing 2,000 gpm water treatment plant by increasing its capacity to 3,000 gallons per minute. Expansion of the JWI water treatment plant to 3,000 gallons per minute would provide an additional 1,500,000 gallons per day or a total of 3,000,000 gallons per day to supply the Alternative "B" service area.

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ALTERNATIVE "B" DESCRIPTION

Alternative "B" is divided into three phases to provide water ultimately to water utilities in Ripley County, Decatur County and Jennings County. A phased plan is proposed to allow construction to occur in a manner that will be most cost beneficial. This method of implementing Alternative "B" could result in scheduling waterworks improvements and capital expenditures over a period of time. Each of the three phases in Alternate "B" will produce an increased amount of water to the water utilities in the three-county area. The following is an estimate of the current average day volumes of water consumed by the utilities that could benefit for Alternative "B":

ALTERNATIVE "B"

ESTIMATED AVERAGE DAILY WATER DEMAND OF UTILITIES

<u>UTILITY NAME</u>	<u>ESTIMATED AVERAGE DAILY COSUMPTION</u>
1. Muscatatuck Urban Training Center	200,000 gpd
2. Holton Water Company	150,000 gpd
3. Napoleon Community Water Co.	160,000 gpd
4. Osgood (less Holton & Napoleon)	360,000 gpd
5. <u>Town of Versailles (Includes State Park)</u>	<u>400,000 gpd</u>
TOTAL	<u>1,270,000 gpd</u>

Alternate "B" would be flexible to the extent that water could be delivered to multiple water utilities. The route of Alternate "B" makes it feasible to extend water mains to serve the five water utilities listed above plus Decatur County Rural Water which could supply water to the City of Greensburg.



## ALTERNATIVE "B" RELEVANT HYDRAULIC CONSIDERATIONS

Each water utility possesses certain unique hydraulic characteristics. These unique characteristics must be accommodated to accomplish a successful transfer of water from one utility to another. A primary consideration is the elevation of the high water level in elevated water storage tanks in each utility. The overflow elevation at each elevated water tank determines the maximum static water pressure in a water distribution system. A comparison of the high water elevation in the City of Greensburg, Town of Versailles, Town of Osgood, Holton Water Company, Napoleon Community Water Company and Jennings Water, Inc.'s. elevated water storage tank is as follows:

### COMPARISON OF ELEVATED TANK HIGH WATER ELEVATIONS

<u>WATER UTILITY</u>	<u>TANK HIGH WATER ELEVATION</u>
City of Greensburg	1100 msl
Town of Versailles	1125 msl
Jennings Water, Inc. (Fairgrounds)	870 msl
Jennings Water, Inc. (Butlerville)	925 msl
Jennings Water, Inc. (Nebraska)	991 msl
Holton Water Company	1055 msl
Napoleon Community Water Co.	1158 msl

The Jennings Water Fairgrounds Tank would provide water supply at the point of connection for the Alternative "B" water transmission main. The above table reveals a significant difference in water storage tank high water elevations for the Jennings Water Fairgrounds tank and the Town of Versailles Tank. This difference in elevation in the elevated water storage tanks from the Jennings Water Fairgrounds Tank and the Town of Versailles Tank is approximately 255 feet.

A water booster station will be required to deliver water east from the point of connection to Jennings Water, Inc. Location of the water booster station should take advantage of the source of supply water pressure. The source of water supply water pressure should be allowed to drop to an acceptable pressure on the suction side of the water booster station. For purposes of planning, the water booster station should have an ultimate maximum flow rate of 5,000,000 gallons per day. The proposed water booster station would be rated at the following flow rates corresponding with the stage of construction:

PROPOSED ALTERNATE "B" WATER TRANSMISSION MAIN

<u>CONSTRUCTION PHASE</u>	<u>BOOSTER STATION CAPACITY</u>
1	1,000 gpm = 1.5 mgd
2	1,000 gpm = 1.5 mgd
3	2,000 gpm = 3.0 mgd

The intersection of C.R. 500 North and C.R. 75 West is an ideal location for a new water booster station to accommodate a range of flows from 1.5 MGD to 3.0 MGD. Three-phase electric power would be readily available at this site. This location has a ground elevation of 737 msl and an approximate maximum static water pressure of 57 psi. This location is approximately 500 feet east of the Jennings Water, Inc.'s 500,000 gallon elevated water storage tank across from the Jennings County Fairground. The new booster station would take suction from the existing 12" water main at the intersection of C.R. 500 North and C.R. 75 West. Using the existing 12" water main as the suction line to the booster station, there would be a pressure drop of less than 10 psi from static pressure to a residual pressure of approximately 47 psi.

## ALTERNATIVE "B" – PHASE ONE DESCRIPTION

The Alternate "B" water main extension consists of a proposed 20" diameter ductile iron water main. Phase "One" of Alternative "B" would consist of the following:

1. Construct 80,000 L.F. of 20" PC 300 ductile iron water main. (From intersection of C.R. 500 N and C.R. 75 West in Jennings County to the intersection of C.R. 950 West and Hopewell Road in Ripley County.)
2. Construct a constant pressure water booster station at the intersection of C.R. 500 North and C.R. 75 West. Booster station would be constant pressure type with three pumps each capable of pumping 0 to 500 gallons per minute. A maximum of two pumps would operate and one pump would be in standby.
3. Connect to existing Holton Water Company water mains at the intersection of C.R. 950 West and Hopewell Road.

The distance from the intersection of C.R. 500 North and C.R. 75 West to the intersection of Hopewell Road and U.S. 421 is estimated to be approximately 128,000 feet. Using a design flow of 3.0 MGD flowing through 128,000 feet of 20" PC 300 D.I. water transmission main, the friction loss would be 102 feet. Therefore, at 3,000,000 gallons per day, the new booster station would have approximately the following maximum total dynamic head:

Elevation lift + Suction friction + Discharge friction = Total Dynamic Head

$$255' + 23' + 102' = 380' = 164 \text{ psi}$$

Discharge pressure at the proposed water booster station when producing 3.0 MGD would be approximately 220 psi. This pressure would be based on pumping the complete 3.0 MGD the entire distance to U.S. 421 and with sufficient pressure to fill the Town of Versailles elevated water storage tank.

## ALTERNATIVE "B" – PHASE TWO DESCRIPTION

The proposed Alternative "B" - Phase Two waterworks improvements are for the purpose of increasing flow from Jennings Water, Inc. to the Town of Versailles. The means of increasing flow is primarily the construction of a 20" ductile iron water main east on Hopewell Road to U.S. 421 at Versailles. The Town of Osgood, Holton Water Company and Napoleon Community Water Company would benefit from this increase in flow capability. Currently Jennings Water, Inc. has an excess capacity of 1.5 MGD.

There is an existing section of 12" SDR 21 PVC water main located between S.R. 7 and S.R. 3. A 20" D.I. water main connects to the 12" SDR 21 PVC water main and extends to the new water treatment plant. To accommodate the increased flow, it will be necessary to construct a new 20" D.I. water main from S.R. 7 to S.R. 3 parallel to the existing 12" PVC water main.

The 20" ductile iron water transmission main constructed in Alternative "B" Phase "One" would be utilized and an additional 48,000 lineal feet of 20" D.I. would be installed to continue the 20" D.I. water main to U.S. 421 at Versailles. Waterworks improvements required to implement Alternative "B" - Phase Two Improvements consist of the following:

1. Construct 14,000 L.F. of 20" D.I. water main from S.R. 7 to S.R. 3
2. Construct 48,000 L.F. of 20 D.I. water main to U.S. 421
3. Upgrade constant pressure booster pumps at C.R. 500 North

### ALTERNATIVE "B" – PHASE THREE DESCRIPTION

The Phase Three waterworks improvements are for the purpose of increasing flow from Jennings Water, Inc. to the Town of Versailles from 1.5 MGD to 3.0 MGD. Alternative "B" - Phase Three Waterworks Improvements includes upgrading the existing JWI water treatment plant capacity from 3.0 MGD to 4.5 MGD. An elevated water storage is proposed as part of Phase 3 to store water and to float on the lower elevations between North Vernon and Versailles. A new water booster station is proposed to be constructed just east of the new elevated water storage tank to pump to the Town of Versailles, Napoleon Community Water Company and to the Town of Osgood.

Waterworks improvements required to implement Phase Three Improvements consist of the following:

1. Construct one (1) new 1,000 gpm water supply well
2. Construct a new 750,000 gallon elevated water storage tank at the intersection of C.R. 950 West and Hopewell Road in Ripley County.
3. Convert water booster station constructed in Phase One and modified in Phase Two from constant pressure to direct drive.
4. Add one additional 1,000 gpm catalytic reactor to water plant
5. Add one additional 1,000 gpm horizontal pressure filter
6. Replace one high service pump at water treatment plant
7. Replace water transfer pump in Water Treatment Plant
8. Construct new 2.0 mgd water booster station at the intersection of U.S. 421 and Hopewell Road.

The total project costs for each of the three phases are summarized as follows:

ALTERNATE "B"

SUMMARY OF CONSTRUCTION OF EACH PHASE OF WORK

<u>PHASE OF CONSTRUCTION</u>	<u>ESTIMATED PROJECT COST</u>
One	\$ 6,832,265.00
Two	\$ 2,753,960.00
<u>Three</u>	<u>\$ 4,646,400.00</u>
Total Estimated Cost	<u>\$14,232,625.00</u>

**COST ESTIMATE**  
**FOR**  
**ALTERNATIVE "B" PHASE ONE**

**ALTERNATE "B" - PHASE ONE**

**PRELIMINARY PROJECT COST ESTIMATE**

**NEW BOOSTER STATION & 20" D.I. WATER MAIN**

**INTERSECTION OF C.R. 500 NORTH & C.R. 75 WEST IN JENNINGS COUNTY  
TO**

**INTERSECTION OF C.R. 950 WEST & HOPEWELL ROAD IN RIPLEY COUNTY**

ITEM NUMBER	ITEM DESCRIPTION	UNITS	QUANTITY	UNIT PRICE	TOTAL PRICE
1	1,000 GPM CONSTANT PRESSURE WATER BOOSTER STATION	L.S.	1	\$275,000.00	\$275,000.00
2	LAND FOR BOOSTER STATION	L.S.	1	\$17,000.00	\$17,000.00
3	20" P.C. 350 D.I. WATER MAIN	L.F.	80,000	\$60.00	\$4,800,000.00
4	CONNECTIONS TO EXISTING WATER MAINS	EACH	2	\$7,000.00	\$14,000.00
5	SURFACE RESTORATION	L.S.	1	\$75,000.00	\$75,000.00
6	SPECIAL CREEK CROSSINGS	EACH	10	\$15,000.00	\$150,000.00
7	SPECIAL ROAD CROSSINGS	EACH	15	\$9,500.00	\$142,500.00
8	STANDARD FIRE HYDRANT & AUX. VALVE	EACH	15	\$2,200.00	\$33,000.00
9	DUCTILE IRON R.S.M.J. FITTINGS	L.S.	1	\$140,000.00	\$140,000.00
TOTAL ESTIMATED CONSTRUCTION COST					\$5,646,500.00
CONSTRUCTION CONTINGENCY (7%)					\$395,255.00
NON-CONSTRUCTION COSTS (14%)					\$790,510.00
TOTAL ESTIMATED PROJECT COST					\$6,832,265.00



**COST ESTIMATE**  
**FOR**  
**ALTERNATIVE "B" PHASE TWO**

**ALTERNATE "B" - PHASE TWO**

**PRELIMINARY PROJECT COST ESTIMATE**

**NEW 20" D.I. WATER MAIN FROM C.R. 950 WEST & HOPEWELL RD. TO U.S. 421 AT VERSAILLES**

**NEW 20" D.I. WATER MAIN FROM S.R. 3 TO S.R. 7**

ITEM NUMBER	ITEM DESCRIPTION	UNITS	QUANTITY	UNIT PRICE	TOTAL PRICE
1	20" PC 350 D.I. WATER TRANSMISSION MAIN	L.F.	14,000	\$55.00	\$770,000.00
2	20" PC 350 D.I. WATER TRANSMISSION MAIN	L.F.	48,000	\$60.00	\$2,880,000.00
3	CONNECTIONS TO EXISTING WATER MAINS	L.S.	4	\$5,000.00	\$20,000.00
4	SURFACE RESTORATION	L.S.	1	\$20,000.00	\$20,000.00
5	SPECIAL CROSSINGS	L.S.	10	\$12,000.00	\$120,000.00
6	UPGRADE CONSTANT PRESSURE BOOSTER STATION	L.S.	1	\$30,000.00	\$30,000.00
TOTAL ESTIMATED CONSTRUCTION COST					\$3,840,000.00
CONSTRUCTION CONTINGENCY (7%)					\$268,800.00
NON-CONSTRUCTION COSTS (14%)					\$537,600.00
TOTAL ESTIMATED PROJECT COST					\$4,646,400.00

**COST ESTIMATE**  
**FOR**  
**ALTERNATIVE "B" PHASE THREE**

**ALTERNATE (B) - PHASE THREE**

**1 - 1,000 GPM WATER WELL  
1,000 GPM ADDITION TO EXISTING WATER TREATMENT PLANT  
750,000 GALLON ELEVATED WATER STORAGE TANK  
1,000 GPM WATER BOOSTER STATION**

ITEM NUMBER	DESCRIPTION	UNITS	QUANTITY	UNIT COST	TOTAL COST
1	1,000 GPM CATALYTIC REACTOR	EACH	1	\$135,000	\$135,000
2	1,000 GPM HORIZONTAL PRESSURE FILTERS	EACH	1	\$270,000	\$270,000
3	1,200 GPM HIGH SERVICE PUMP	EACH	1	\$30,000	\$30,000
5	0-2,000 GPM TRANSFER PUMPS	EACH	1	\$20,000	\$20,000
6	WATER PLANT ELECTRICAL & LIGHTING	EACH	1	\$70,000	\$70,000
7	AUTOMATIC CONTROL CIRCUITS	LUMP SUM	1	\$20,000	\$20,000
8	YARD PIPING AND VALVES	EACH	1	\$30,000	\$30,000
9	WATER PLANT PIPING AND VALVES	EACH	1	\$35,000	\$35,000
10	SITE WORK	LUMP SUM	1	\$20,000	\$20,000
11	DRIVES AND SIDEWALKS	LUMP SUM	1	\$20,000	\$20,000
12	TELEMETRY MODIFICATION	LUMP SUM	1	\$20,000	\$20,000
13	ADDITION TO WATER TREATMENT PLANT BLD.	LUMP SUM	1	\$80,000	\$80,000
14	PAINTING	LUMP SUM	1	\$24,000	\$24,000
15	1,000 GPM WATER WELL	EACH	1	\$160,000	\$160,000
16	WELL FIELD ELECTRICAL & CONTROLS	LUMP SUM	1	\$40,000	\$40,000
17	MODIFY BOOSTER STATION TO DIRECT DRIVE	EACH	1	\$12,000	\$12,000
18	750,000 GALLON ELEVATED WATER TANK	LUMP SUM	1	\$1,100,000	\$1,100,000
19	1,000 GPM WATER BOOSTER STATION	LUMP SUM	1	\$190,000	\$190,000
TOTAL ESTIMATED CONSTRUCTION COSTS					\$2,276,000
CONSTRUCTION CONTINGENCY (7%)					\$159,320
NON-CONSTRUCTION COSTS (14%)					\$318,640
TOTAL ESTIMATED PROJECT COST					\$2,753,960

ALTERNATIVE "C" DESCRIPTION (Service to Muscatatuck Urban Training Center)

THE MUSCATATUCK URBAN TRAINING CENTER

A unique opportunity of this grant process would be the ability of the State of Indiana to resolve the water source needs of the ever expanding Muscatatuck Urban Training Center. Though the Training Center is already within the service area of Jennings Water, Inc., this grant offers the potential of allowing Jennings Water to supplement and enhance the growing water needs of the Training Center. Alternative "C" would allow service to occur and increase the water needs of the Training Center which are expected to manifest in the late 2008 and early 2009 time frame.

**COST ESTIMATE  
FOR  
ALTERNATIVE "C" PHASE ONE**

**PHASE I - ALTERNATE 'C'**  
**INTERSECTION OF C.R. 500 NORTH & C.R. 75 WEST IN JENNINGS COUNTY**  
**TO**

**INTERSECTION OF U.S. 50 & ENTRANCE TO MUSCATATUCK URBAN TRAINING CENTER**

ITEM NUMBER		UNITS	QUANTITY	UNIT PRICE	TOTAL PRICE
1	700 GPM CONSTANT PRESSURE WATER BOOSTER STATION	L.S.	1	\$200,000.00	\$200,000.00
2	LAND FOR BOOSTER STATION	L.S.	1	\$17,000.00	\$17,000.00
3	16" P.C. 350 D.I. WATER MAIN	L.F.	34,500	\$48.00	\$1,656,000.00
4	CONNECTIONS TO EXISTING WATER MAINS	EACH	1	\$7,000.00	\$7,000.00
5	SURFACE RESTORATION	L.S.	1	\$31,500.00	\$31,500.00
6	SPECIAL ROAD CROSSINGS	EACH	7	\$7,000.00	\$49,000.00
7	STANDARD FIRE HYDRANT & AUX. VALVE	EACH	4	\$2,200.00	\$8,800.00
8	DUCTILE IRON R.S.M.J. FITTINGS	L.S.	1	\$110,000.00	\$110,000.00
TOTAL ESTIMATED CONSTRUCTION COST					\$2,079,300.00
CONSTRUCTION CONTINGENCY (7%)					\$145,551.00
NON-CONSTRUCTION COSTS (14%)					\$291,102.00
TOTAL ESTIMATED PROJECT COST					\$2,515,953.00

**COST ESTIMATE  
FOR  
ALTERNATIVE "C" PHASE TWO**



**PHASE II - ALTERNATE 'C'**  
**INTERSECTION OF C.R. 650 NORTH & C.R. 500 EAST IN JENNINGS COUNTY**  
**TO**  
**INTERSECTION OF U.S. 50 & ENTRANCE TO MUSCATATUCK URBAN TRAINING CENTER**

ITEM NUMBER		UNITS	QUANTITY	UNIT PRICE	TOTAL PRICE
1	12" P.C. 350 D.I. WATER MAIN	L.F.	20,000	\$34.00	\$680,000.00
2	CONNECTIONS TO EXISTING WATER MAINS	EACH	1	\$7,000.00	\$7,000.00
3	SURFACE RESTORATION	L.S.	1	\$18,500.00	\$18,500.00
4	U.S. 50 SPECIAL CROSSING	L.S.	1	\$24,000.00	\$24,000.00
5	CSX RAILROAD CROSSING	L.S.	1	\$32,000.00	\$32,000.00
6	SPECIAL CREEK CROSSINGS	EACH	2	\$30,000.00	\$60,000.00
7	SPECIAL ROAD CROSSINGS	EACH	7	\$7,000.00	\$49,000.00
8	STANDARD FIRE HYDRANT & AUX. VALVE	EACH	4	\$2,200.00	\$8,800.00
9	DUCTILE IRON R.S.M.J. FITTINGS	L.S.	1	\$80,000.00	\$80,000.00
TOTAL ESTIMATED CONSTRUCTION COST					\$959,300.00
CONSTRUCTION CONTINGENCY (7%)					\$67,151.00
NON-CONSTRUCTION COSTS (14%)					\$134,302.00
TOTAL ESTIMATED PROJECT COST					\$1,160,753.00

ALTERNATIVE "D" DESCRIPTION

INTERCONNECTION WITH HAYDEN WATER COMPANY

An important part of solving the regional water needs of the three county area includes the planning and implementation of the process of utility interconnection, as previously outlined above (pg.1-4). Jennings Water is capable of providing an important interconnect with the Hayden Water Company in Jennings County, Indiana. Alternative "D" outlines the costs associated with this action.

**COST ESTIMATE  
FOR  
ALTERNATIVE "D"**

**OPTION TO SERVE HAYDEN WATER COMPANY FROM JWI**

**MODIFY EXISTING WATER BOOSTER STATION TO WATER METERING STATION  
CONSTRUCT 11,000 L.F. OF 8" SDR 21 PVC WATER MAIN  
INSTALL AUTOMATIC TANK WATER LEVEL CONTROLS**

ITEM NUMBER	DESCRIPTION	UNITS	QUANTITY	UNIT COST	TOTAL COST
1	MODIFY BOOSTER STATION TO METERING STATION	EACH	1	\$14,000	\$14,000
2	8" SDR 21 PVC WATER MAIN	L.F.	11,000	\$12	\$132,000
3	CONNECTIONS TO EXISTING WATER MAINS	EACH	2	\$1,500	\$3,000
5	SPECIAL CROSSINGS OF COUNTY ROADS	EACH	3	\$5,000	\$15,000
6	D.I.M.J. FITTINGS	L.S.	1	\$13,200	\$13,200
7	AUTOMATIC TANK LEVEL CONTROLS	LUMP SUM	1	\$14,000	\$14,000
8	YARD PIPING AND VALVES	EACH	1	\$3,000	\$3,000
9	SURFACE RESTORATION	LUMP SUM	1	\$4,500	\$4,500
TOTAL ESTIMATED CONSTRUCTION COSTS					\$198,700
CONSTRUCTION CONTINGENCY (7%)					\$13,909
NON-CONSTRUCTION COSTS (14%)					\$27,818
TOTAL ESTIMATED PROJECT COST					\$240,427

## **SECTION IV**

### **REGIONAL WATER SUPPLY CONSIDERATIONS**

#### **EXISTING WATER SOURCES**

There are two existing water utilities within the three-county area that have the capability to increase their water production and to provide water to the utilities in the three-county area. These two utilities are Hoosier Hills Regional Water District and Jennings Water, Inc. In the case of Hoosier Hills Regional Water District, they have developed a well field in the aquifer adjacent to the Whitewater River south of Brookville in Franklin County. In the case of Jennings Water, they have developed a well field in the aquifer adjacent to the White River near the community of Reddington in Jackson County. Both of these utilities have secured their water source outside the three-county area. Both of these utilities rely on ground water sources which are expandable in terms of future water production capacity.

#### **HOOSIER HILLS REGIONAL WATER DISTRICT**

Hoosier Hills Regional Water District is a membership-owned non-profit water utility. Hoosier Hills Regional Water District serves water to a very large service area and to two other utilities. The Town of Milan has discontinued operation of their surface water treatment plant and they purchase all their water from Hoosier Hills Regional Water District. North Dearborn Water Company purchases a small portion of their water supply from Hoosier Hills Regional Water District. With respect to the three-county area, Hoosier Hills Regional Water District serves water primarily in the eastern portion of Ripley County from north to south. The City of Batesville is bordered by Hoosier Hills Regional Water District on the east and south sides of Batesville.

Hoosier Hills Regional Water District appears to be an ideal source of water to supply the City of Batesville in the future. Batesville's demand for water will increase in the future and the efficiency of their raw water source will diminish.

These factors will place Batesville in the position of seeking an improved source of water. Hoosier Hills Regional Water District Water Company would be an ideal source of water to serve or supplement the City of Batesville in their future water supply needs. Hoosier Hills Regional Water District has a long history of waterworks expansion to serve water supply needs. The Hoosier Hills Regional Water District water service area causes their distribution system to be relatively close to the Ohio River. Hoosier Hills Regional Water District could develop a well field along the Ohio River or expand their existing well field on the Whitewater River. Carrying capacity of the Hoosier Hills Regional Water District water transmission main from the Whitewater River, however, will be an issue which could be eliminated with construction of water storage tanks and booster stations.

Hoosier Hills Regional Water District has the capability to supplement or serve water directly or indirectly, with **significant waterworks construction improvements**, to furnish water to the following cities, towns or rural water companies:

1. Town of Osgood
2. City of Greensburg
3. Decatur County Rural Water
4. Holton Water Company
5. Napoleon Community Water Company
6. Town of Versailles
7. Town of Sunman

JENNINGS WATER, INC.

Jennings Water, Inc. has a similar organization structure to Hoosier Hills Regional Water District. Jennings Water also has a history of expansion to serve water supply needs in and around their service area. Jennings Water, Inc. is uniquely superior in that it has recently completed a major waterworks improvements project. Completion of this project leaves Jennings Water with a surplus of 1,500,000 gallons of water per day ready to sell. Further, it has the ability to promptly increase their surplus of water from 1,500,000 gallons per day to 3,000,000 gallons per day.

Jennings Water has the capability to directly or indirectly supplement or serve, with **minor waterworks construction improvements**, water to the following Cities, Towns or rural water companies:

1. Hayden Water Company
2. City of North Vernon
3. Town of Vernon
4. Burnt Pines Water Company

Jennings Water has the capability to supplement or serve water directly or indirectly, with **significant waterworks construction**, to the following Cities, Towns or rural water companies:

1. City of Greensburg
2. Town of Westport
3. Muscatatuck Urban Training Center
4. Decatur County Rural Water
5. Holton Water Company
6. Napoleon Community Water Company
7. Town of Versailles
8. Town of Osgood

## **SECTION V**

### **REGIONAL WATER RELIABILITY MAXIMIZATION**

#### **GENERAL**

Historically, each of the utilities in Jennings, Ripley and Decatur Counties has developed independently. They have exploited readily available water resources and addressed their immediate water needs. With this approach and slow population growth the utilities have had a considerable amount of time to plan and prepare for their waterworks needs. Historically, the pace of planning, organizing and controlling water-related matters could be done over a period of time.

Development of the new Honda automotive plant at Greensburg will have significant regional impact. One impact will be increased water demands in the three-county area. The nature of the impact and the magnitude of the demands have not been quantified at this time. However, there is a high degree of certainty that water resources in the three-county area will be impacted.

There are several water utilities in the three-county area. These utilities need to be reviewed in terms of how the utilities can interact in the near-term to provide the area's water needs. There are many variables that must be examined to understand potential actions that could maximize water availability. Some of the variables to be examined are as follows:

1. Geographic location of water utilities and their service area
2. Location and size of water mains
3. Water storage tank high water elevations
4. Distances between water service areas
5. Type of water treatment performed by each utility



6. Design versus actual production capacity of each water utility
7. Overall condition of water production facilities of each utility
8. Specific capacity constraint limitations of each utility
9. Temporary excess water capacity of each utility
10. Long term excess water capacity of each utility
11. Response plan for each utility if confronted with new water demands
12. Cost of water structure for each utility

The partial list of variables listed above are very complex individually and they interact to become more complex as a complete mix of interacting variables.

#### WATER SERVICE FROM ADJACENT UTILITIES

All water utilities have a design life cycle. Typically, planning cycle for many components of a waterworks is 20 years. Each water utility is at some point in their design cycle based on the age of the utility. Each utility typically has some volume of excess capacity. Often that capacity is extensive and can be utilized in the short run and replaced in the long run. In the case of Jennings Water, Inc., it has 1,500,000 gallons per day that can be used in the short run and replaced in the long run to satisfy future water needs. Other water utilities have water production constraints that could be remedied to create a temporary surplus of water. For example, the Town of Osgood could make upgrades to their raw water intake structure, raw water pumping equipment and raw water transmission main to increase their water production.

Proximity of the source of water production to the location where water is demanded is a prime consideration.

## GEOGRAPHICAL COMPATIBILITY OF UTILITIES

Due to simple geographic proximity of utilities, there are often benefits to be accrued from the coordination of efforts. Jennings Water, Inc, Hayden Water Company, Burnt Pines Water Company, City of North Vernon, Muscatatuck Urban Training Center, Jennings Northwest Regional Utilities, and the Town of Vernon all operate in the southern portion of the three-county area. All seven of these utilities are located in Jennings County. Three of the utilities produce water and four of the utilities purchase water. These seven utilities share much of the same common interests. The current state of water supply evolved from conditions which existed when each utility organized. When they were organized, each utility endeavored to secure the ideal water supply for their customers. Today the seven utilities should examine current conditions to determine the optimum means of serving the seven utilities' customers in the future.

There is a variety of alternatives that exist to optimize water service to the seven utilities. The following is a partial list of the actions that could be taken to benefit one or more of the seven utilities:

## REGIONAL STRATEGY ONE

1. Hayden Water Company could purchase water from Jennings Water, Inc.

## REGIONAL BENEFIT ONE

- a. Free up approximately 12.5% (greater than 60,000,000 gallons per year) of the total water production by the City of North Vernon for sale to new or existing water customers.
- b. Low cost alternative for City of North Vernon to increase water sales potential
- c. Removes Hayden's water usage from North Vernon's distribution and transmission mains improving flow and pressure.

- d. Reduces electric cost due to proximity to Jennings Water's treatment plant
- e. Jennings Water has a water transmission main in short distance to Hayden's water distribution system.

#### REGIONAL STRATEGY TWO

- 2. City of North Vernon could purchase supplemental water supply from Jennings Water, Inc.

#### REGIONAL BENEFIT TWO

- a. JWI and City of North Vernon distribution systems are currently connected and implementation could be performed by opening a valve.
- b. Water service could be commenced in short time duration
- c. Raw water supply variables associated with stream flow in Muscatatuck River could be eliminated.
- d. Water quality issues associated with raw water quality in Muscatatuck River could be eliminated.
- e. Future water demands of City of North Vernon and their wholesale customers would have a ready source and means for servicing increasing water demands.
- f. Both Jennings Water and City of North Vernon could benefit from economies of scale associated with water production.
- g. Potential for shared costs and benefits from elevated water storage tanks

#### REGIONAL STRATEGY THREE

- 3. Muscatatuck Urban Training Center could purchase its entire water supply from Jennings Water, Inc. and retire its existing surface water treatment plant.

#### REGIONAL BENEFIT THREE

- a. Cost of restoring all components of the deteriorated surface water treatment plant could be avoided.
- b. Labor cost of operating existing surface water treatment plant could be eliminated.

- c. Chemical cost of operating existing surface water treatment plant could be eliminated.
- d. Cost of pumping and treating backwash water from surface water treatment plant could be eliminated.
- e. Threat of accidental damage or contamination to water treatment plant or water supply could be eliminated.
- f. Increased fire flow volumes and duration.
- g. Automated continuous monitoring of water levels in elevated water storage tank at Muscatatuck Urban Training Center.
- h. Elimination of raw water quality issues associated with extracting raw water from a surface water impoundment.
- i. Avoidance of water treatment issues associated with weather-related issues such as temperature and flooding.
- j. Elimination of quality of public water supply as a managerial aspect of operation of Muscatatuck Urban Training Center.

#### REGIONAL STRATEGY FOUR

- 4. Upgrade various aspects of Town of Napoleon surface water treatment plant.

#### REGIONAL BENEFIT FOUR

- a. Provide a reliable and increased raw water supply from Laughery Creek to stone quarries.
- b. Upgrade water plant instrumentation, chemical feed, pumping, electrical and other components to increase production to design capacity.
- c. Provide increased water supply to Holton Water Company and Napoleon Community Water Utility.
- d. Provide an emergency partial backup water source to Town of Versailles through the Holton Water Company
- e. Provide an emergency partial backup water source to City of Batesville through Napoleon Community Rural Water.
- f. Increase Town of Osgood's water capacity to serve a new industrial or commercial water customer.

- g. Provide an emergency partial backup water source to Decatur County Rural Water Company through Napoleon Community Rural Water.

#### REGIONAL STRATEGY FIVE

- 5. Remove silt from Versailles Lake and restore lake to viable healthy condition.

#### REGIONAL BENEFIT FIVE

- a. Restore raw water quality in Versailles Lake to that of a typical surface water impoundment.
- b. Enable Town of Versailles water treatment plant to produce designed capacity of 1,000,000 gallons per day, increasing production currently limited due to water quality.
- c. Allow the Town of Versailles to have increased quantity of water available for commercial and industrial growth.
- d. Improve water quality in Versailles Lake for recreational use.
- e. Enable Town of Versailles to provide partial emergency backup water supply to the Town of Osgood through Holton Water Company.
- f. Improve surface aeration and control of plant growth in Versailles Lake.
- g. Assure an ongoing quality water supply to Versailles State Park.

**VI. REQUIRED RESPONDENT INFORMATION**

**1. Entity name and address of principal location and office.**

Jennings Water, Inc.  
1595 Buckeye Street  
North Vernon, Indiana 47265

**2. Please describe:**

**(a) A brief history of your entity and how your selection would benefit one or more counties in the Three County Region.**

Please note a brief history of Jennings Water, Inc. is provided in a prior portion of this response.

Jennings Water, Inc. believes selection of its utility would provide the most beneficial impact on the near term and long term water supply needs of the three county area. First Jennings Water, Inc. has a tradition of planning and organizing waterworks improvements that can be performed immediately and those projects that are to be performed in the future. This organization includes engineers, attorneys and accountants with a long history of performing these projects for Jennings Water, Inc.

Jennings Water is an up and going waterworks operating in a major portion of the three county service area. The existing water distribution system covers much of Jennings County and reaches out into the adjacent counties of Ripley and Decatur. Jennings Water has 1,500,000 gallons of water per day immediately available for delivery to water utilities that need increased water supply. Further, Jennings Water, Inc. has studied the potential means of serving various water utilities in the region, including the City of Greensburg and the Muscatatuck Urban Training Center.

Jennings Water is willing to cooperate with other waterworks in the three county region. They will readily acknowledge those locations where they are not the best source of water supply in the three county region. Jennings Water will endeavor to utilize all funds provided by outside sources in the most efficient manner to serve the greatest water supply needs.

**(b.) Your entity's experience, background, or expertise that qualifies your entity for this project.**

Please note a brief history of Jennings detailing the experience and background of Jennings Water, Inc. is provided in a prior portion of this response.

Jennings water has a demonstrated in planning, organizing and operating a large waterworks utility serving a vast area. Jennings Water has a water distribution infrastructure containing several hundred miles of water mains that range in diameter from 2" to 20". Through their years of successful operation they have gained unique experience that comes from operating a large water distribution system. They have encountered operating in a wide variety of soil conditions ranging from saturated sand to solid rock. They have encountered drastic variations in ground elevation that occurs when providing water service in a large area in east central Indiana. They know the consequences of maintaining a water distribution system that crosses rivers, railroads and major highways.

**(c.) Number of full-time employees and their licenses.**

Jennings water has two (2) full-time licensed employs as follows:

Mr. Donald McEvoy - WT3 967602-025571 DSL 967601-025571

Mr. Russell Richardson – WT3 905367-025848 DSL 905366-025847

**3. List names, titles and experience of staff members who would be assigned to perform significant work on this project. Briefly outline the roles of the staff members and key personnel. The Authority would like to have one point of contact identified.**

Engineering Services will be provided by the firm of Robert E. Curry and Associates, Inc. This firm has been engaged by Jennings Water, Inc. continuously since 1984. Mr. Robert E. Curry, P.E. is the engineer from that firm that has been assigned to handle all engineering matters of Jennings Water. This firm has designed every component of a waterworks in their involvement with Jennings Water. They have full knowledge of the water distribution system and adaptabilities of all components within the waterworks.

Robert E. Curry, P.E. would be the supervising engineer on waterworks improvements performed by Jennings Water. Mr. Curry can be assisted by Lori. A. Young, P.E. and Kent Elliott, P.E. in any professional engineering services. This firm has an architectural staff and sufficient support staff to support the needs of Jennings Water in any typical waterworks project. This firm provides or has provided waterworks engineering services to six (6) of the waterworks in the region.

Legal Services will be provided by the firm of Cline, King & King, P.C. This firm has been engaged by Jennings Water, Inc. continuously for approximately 25 years. Mr. Peter C. King is the attorney from that firm that has been assigned to handle all legal matters of Jennings Water. This firm has provided legal services relevant to every activity of Jennings Water, Inc. They have full knowledge of the day to day legal matters that confront a waterworks and they have knowledge relevant to major construction projects. This firm provides legal services to other waterworks utilities in the southern Indiana region.

Accounting Services will be provided by the firm of Patrick Callahan, LLC. This firm has been engaged by Jennings Water, Inc. continuously for approximately six (6) years. Mr. Patrick Callahan, CPA is the accountant from that firm who has been assigned to handle all financial matters of Jennings Water. This firm has provided accounting services relevant to cost of water production and determination of water rates of Jennings Water, Inc. They have full knowledge of the cost of water production and delivery for Jennings Water, Inc. Mr. Callahan has been recently involved in determining the rate structure for Jennings Water for construction of a multimillion dollar waterworks improvements project. This firm provides accounting services to other utilities in the three county region.

Point of Contact will be:

Peter Campbell King  
Cline, King & King, P.C.  
1225 7<sup>th</sup> Street, Suite B  
P.O. Box 250  
Columbus, IN 47202-0250  
Telephone: 812-372-8461  
Facsimile: 812-372-2544  
Email: [pck@lawdogs.org](mailto:pck@lawdogs.org)

4. **Indicate how your entity will provide the services requested in this RFQ and the type and amount financial assistance being requested from the State for those services. Provide any histories or other information available that would indicate past performance on similar types of projects (especially that which would address the selection criteria).**

Jennings Water, Inc. would provide the services requested in this RFQ in a manner that would achieve the objectives of the RFQ and would be consistent with the Statutes of the State of Indiana.



Jennings Water will utilize the same practices they have performed on similar projects in the past to the extent they are applicable to this RFQ.

Please note a brief description in a prior section detailing how Jennings Water has achieved results in previous waterworks improvements of similar magnitude.

**5. References:**

- (a.) List three persons who can provide information about similar work your entity has completed.**

Mr. Fred Harrison, P.E.  
Mitchell & Stark Construction Company, Inc.  
P.O. Box 219  
Medora, Indiana 47260

Mr. Dave O'Mara  
O'Mara Contractors, Inc.  
P.O. Box 1139  
North Vernon, Indiana 47265

Mr. Jim Logan  
Bastin & Logan Water Supply Contractors, Inc.  
P.O. Box 55  
Franklin, Indiana 46131

- (b.) Provide a list of financial references that can provide information about the entity.**

Patrick Callahan, CPA  
318 Park Street  
Westfield, Indiana 46074

John G. Seale, CPA  
RBSK Partners  
224 North Broadway Street  
P.O. Box 200  
Greensburg, Indiana 47240

- 6. Submit a list of work similar to the proposed project and a list of similar work completed within the last five years. The list should be of comparable projects in which your entity has participated.**

**Respondents should specify how these comparable projects relate to the proposed project.**

The four components of a waterworks utility consist of: water supply, water treatment, water distribution, and water storage. The following is a list of comparable projects in each of the four components:

Jennings Water has developed a source of water supply commencing in 1978. That process consisted of locating a well field verification of the well field and construction of water production wells. Since 1978 Jennings has drilled five (5) water supply wells of approximately 1,000 gallons per minute each.

Jennings Water has planned and placed in service a water treatment facilities in 1978. That water treatment plant was modified and expanded in 1996 and again in 2006. The water treatment plant was originally constructed for Seven Hundred (700) gallons per minute and has been expanded to two thousand (2,000) gallons per minute. The plant has the capability to expand to three thousand (3,000) gallons per minute.

Jennings Water arose from the merger of two rural water companies. These two rural water companies were blended together to form a single functional water company. This involved joining water transmission mains from two separate utilities to form an efficient water distribution system. In 1978 a 10" water transmission main was constructed from the water treatment plant to North Vernon. In approximately 1996 a five mile long 12" water main was constructed from S.R. 3 to the intersection of C.R. 350 North and C.R. 75 West. In 2006 a new 20" ductile iron water main was constructed from the water treatment plant to the 12" water main at S.R. 3. Each of these projects included major water main construction projects.

Jennings Water, Inc. has several water storage tanks in their water distribution system. These tanks range in size from 30,000 gallons to 500,000 gallons. Jennings Water, Inc. has a 500,000 ground level water storage tank at the water treatment plant which stores treated water. There are two (2), a 500,000 and a 100,000 gallon, elevated water storage tanks at North Vernon. The east side of the water distribution system has a 100,000 gallon, a 75,000 gallon and a 30,000 gallon elevated water storage tanks. These tanks have been built over a period of time based on needs of the utility. The 500,000 gallon elevated tank was built most recently.

All four of these components have been built by Jennings Water at various times. These are the same components that will comprise an expanded water system.

**7. Submit a copy of a current Certification issued by the State of Indiana, reflecting areas in which the Respondent or members of the respondent's entity are certified.**

1. Jennings Water, Inc. Certificate of Existence by the Indiana Secretary of State (See Appendix Page 92)
2. Indiana Department of Environmental Management  
Public Water Supply Identification Number PWS#5240006  
(See Appendix Page 93)
3. Robert E. Curry, Professional Engineer No. 60015078
4. Peter C. King, Attorney No. 5394-03
5. Patrick Callahan, CPA No. CP08579223

**8. Provide estimated fees and expenses that your entity would likely incur in completing the project(s) and would seek reimbursement.**

Jennings Water, Inc. would expect total reimbursement for all direct and indirect non-construction costs and construction costs associated with all waterworks planning, design and construction.

Estimated fees are shown on the project cost estimates shown in prior sections of the RFQ.

**9. Include a schedule of your current rates and charges to existing customers (i.e. individual, commercial & wholesale customers).**


Please see Appendix page 94.

**10. Provide details of any relevant criminal investigations, material pending litigation, regulatory or civil enforcement actions pending against your entity.**

There are no criminal investigations, litigation, regulatory or civil enforcement actions, relevant material or otherwise, are currently pending against Jennings Water, Inc.

**CERTIFICATION OF INFORMATION PROVIDED**

I, Mark Biehle, the duly authorized and elected Treasurer of Jennings Water, Inc. hereby certifies that all information provided in this response is accurate and complete to the best of my knowledge.

  
Mark Biehle, Treasurer, Jennings Water,

## **CONCLUSION**

The foregoing demonstrates that Jennings Water, Inc. is poised, ready and able to provide a sufficient water supply system to serve Ripley, Decatur, and Jennings Counties. Jennings Water currently serves Ripley County and Jennings County with a 1.5 million gallon per day surplus, and has the infrastructure in place within two (2) miles of Decatur County.

Jennings Water's current capacity is sufficient to serve the explosive growth coming to Greenburg first and foremost. Beyond that, the longstanding needs of the Muscatatuck Urban Training Center will be met by Jennings Water's expanded services. The infrastructure will be in place to provide sufficient water service for current and anticipated future needs, such as for a Fire Training Academy to be created at the Training Center, as currently contemplated by the State Fire Marshall in his long-term Master Plan.

Jennings Water's current capabilities and planned expansion offer the best means of servicing the interests of the three-county region. JWI has a demonstrated history of successfully completing major expansion projects on time and under budget on an aggressive schedule. It has a demonstrated record of successfully developing a potable water needs plan, and has the ability to implement viable solutions to emerging issues attendant to the growth anticipated to occur upon the launch of the Greensburg Honda Assembly plant.

Jennings Water, its staff and engaged professional firms have the technical qualifications, experience and reputation to manage the daily

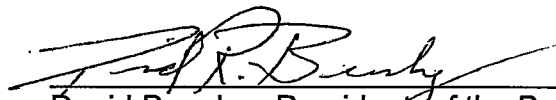
operations and long-term growth of the three-county service area in conformity with all applicable criteria, rules, regulations and statutes.

Jennings Water is familiar with the water needs of its current service areas, Jennings and Ripley counties, and has the experience, training and skills to extend that knowledge to an expanded service area to include Decatur County.

The benefits of the three-county service area include but are not limited to: cost savings and cost avoidance achievable with economies of scale, more efficient service, larger capacity and better water quality.

Jennings Water submits it has provided this Authority with a quality, timely and thorough response which establishes Jennings Water, Inc. as a uniquely superior candidate for this grant, and thanks this Authority for its time and consideration.

Respectfully Submitted,  
JENNINGS WATER, INC.,

  
David Beesley, President of the Board  
of Directors of Jennings Water, Inc.

**APPENDIX**

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**STEPHEN T. TAYLOR**

**ATTORNEY AT LAW**

114 NORTH FRANKLIN STREET  
P. O. BOX 125  
GREENSBURG, INDIANA 47240

Phone (812) 663-2636

Fax (812) 662-0505

**Carol A. Hancock**  
Legal Assistant/Office Manager

**Wanda E. Lienhoop**  
Legal Assistant

September 10, 2007

Mr. Pete King  
Law Offices of Kline, King, and King, P.C.  
1225 7<sup>th</sup> Street, Suite B  
P.O. 250  
Columbus, IN 47202-0250

Via fax transmission: 1-812-372-2544

Re: City of Greensburg/Jennings Water, Inc.

Dear Pete:

This correspondence is to confirm our telephone conference on September 6<sup>th</sup>, 2007, reference Jennings Water, Inc. providing water to the City of Greensburg, Indiana.

The City's preliminary analysis for the financial feasibility of Jennings Water, Inc. to provide water to the City of Greensburg has been completed by Umbaugh and Associates, financial consultants to the City. They were required to make several assumptions which have not been tested as to the viability of utilizing Jennings Water, Inc. as a provider of water; however their preliminary analysis looks very promising.

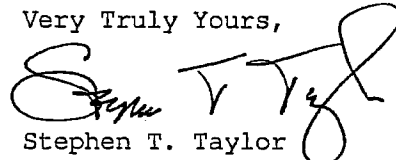
Therefore, the City officials believe that the proposal made by Jennings Water, Inc. looks favorable and the City agrees to negotiate in good faith with Jennings Water, Inc. towards reaching an agreement on this matter.

Please be advised that in support of this position and the limited information currently available, Mayor Frank Manus has authorized me to obtain a thorough engineering analysis and then a cost analysis of the project. Obviously, this will require significant expenditures to be made by the City and I simply tell you this to show that the City is acting in good faith.

Please notify the authorities at Jennings Water, Inc. that they should anticipate being contacted by officials on behalf of the City of Greensburg as additional information will be required.

Thank you.

Very Truly Yours,



Stephen T. Taylor  
Greensburg City Attorney

STT/wel

Cc: Mayor, Frank Manus

Nick Kyle



1 SECTION 298. IC 6-1.1-21-9 IS AMENDED TO READ AS FOLLOWS [EFFECTIVE UPON  
2 PASSAGE]: Sec. 9. (a) On or before October 15 of each year, each county auditor shall make a  
3 settlement with the department as to the aggregate amount of property tax replacement credits  
4 extended to taxpayers in the auditor's county during the first eight (8) months of that same year. On  
5 or before December 31 of each year, each county auditor shall make a settlement with the department  
6 along with the filing of the county auditor's December settlement as to the aggregate amount of  
7 property tax replacement credits extended to taxpayers in the auditor's county during the last four (4)  
8 months of that same year. If the aggregate credits allowed during either period exceed the property tax  
9 replacement funds allocated and distributed to the county treasurer for that same period, as provided  
10 in sections 4 and 5 of this chapter, then the department shall certify the amount of the excess to the  
11 auditor of state who shall issue a warrant, payable from the property tax replacement fund, to the  
12 treasurer of the state ordering the payment of the excess to the county treasurer. If the distribution  
13 exceeds the aggregate credits, the county treasurer shall repay to the treasurer of the state the amount  
14 of the excess, which shall be redeposited in the property tax replacement fund.

15 (b) In making the settlement required by subsection (a), the county auditor shall recognize the fact  
16 that any loss of revenue resulting from the provision of homestead credits in excess of the percentage  
17 credit allowed in IC 6-1.1-20.9-2(d) must be paid from county option income revenues.

18 (c) Except as otherwise provided in this chapter, the state board of accounts with the cooperation  
19 of the department shall prescribe the accounting forms, records, and procedures required to carry out  
20 the provisions of this chapter.

21 (d) Not later than November 15 of each year, the budget agency shall determine whether the  
22 amount distributed to counties under section 10 of this chapter for state property tax  
23 replacement credits and state homestead credits is less than the amount available, as determined  
24 by the budget agency, from the appropriation to the property tax replacement board for  
25 distribution as state property tax replacement credits and state homestead credits. If the amount  
26 distributed is less than the available appropriation, the budget agency shall apportion the excess  
27 among the counties in proportion to the final determination of state property tax replacement  
28 credits and state homestead credits for each county and certify the excess amount for each  
29 county to the department and the department of local government finance. The department shall  
30 distribute the certified additional amount for a county to the county treasurer before December  
31 15 of the year. Not later than December 31 in the year, the county treasurer shall allocate the  
32 certified additional amount among the taxing units in the county in proportion to the part of the  
33 total county tax levy imposed by each taxing unit. The taxing unit shall deposit the allocated  
34 amount in the taxing unit's levy excess fund under established under IC 6-1.1-18.5-17 or IC  
35 20-40-10. The allocated amount shall be treated in the same manner as a levy excess (as defined  
36 in IC 6-1.1-18.5-17 and IC 20-44-3-2) and shall be used only to reduce the part of the county tax  
37 levy imposed by the taxing unit in the immediately following year.

38 SECTION 299. [EFFECTIVE JULY 1, 2007] There is appropriated ten million dollars  
39 (\$10,000,000) from the build Indiana fund under IC 4-30-17 to the Indiana finance authority to  
40 provide funding for the construction or financing of public water supply systems serving Ripley,  
41 Decatur, and Jennings counties, beginning July 1, 2007, and ending June 30, 2009. The purposes  
42 for which the appropriation may be used include use of the appropriation by the Indiana finance  
43 authority to hire engineers, financial analysts and other experts to investigate problems with the  
44 availability or quality of public water and develop proposed solutions. After review by the  
45 budget committee the Indiana finance authority may enter into agreements and take any actions  
46 necessary to finance projects designed to improve the availability and delivery of water to the  
47 public, including the distribution of one (1) or more grants to an entity providing water in any  
48 combination of Ripley County, Decatur County, or Jennings County.

49 SECTION 300. [EFFECTIVE UPON PASSAGE] (a) The definitions in IC 6-1.1-1, IC 6-1.1-20.9,  
50 and IC 6-1.1-21 apply throughout this SECTION.

STATE OF INDIANA  
OFFICE OF THE SECRETARY OF STATE  
CERTIFICATE OF EXISTENCE

To Whom These Presents Come, Greetings:

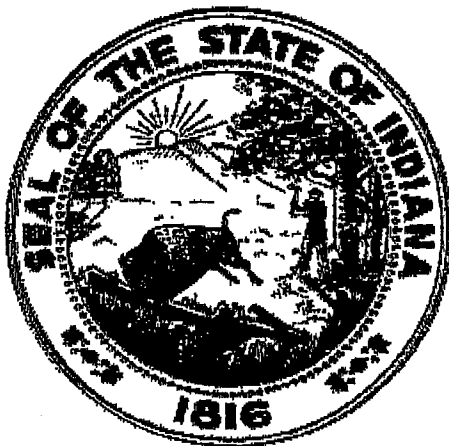
I, TODD ROKITA, Secretary of State of Indiana, do hereby certify that I am, by virtue of the laws of the State of Indiana, the custodian of the corporate records, and proper official to execute this certificate.

I further certify that records of this office disclose that

JENNINGS WATER INC

duly filed the requisite documents to commence business activities under the laws of State of Indiana on December 08, 1975, and was in existence or authorized to transact business in the State of Indiana on March 24, 2006.

I further certify this Non-Profit Domestic Corporation has filed its most recent report required by Indiana law with the Secretary of State, or is not yet required to file such report, and that no notice of withdrawal, dissolution or expiration has been filed or taken place.



In Witness Whereof, I have hereunto set my hand and affixed the seal of the State of Indiana, at the city of Indianapolis, this Twenty-Fourth Day of March, 2006.

A handwritten signature in dark ink, appearing to read "Todd Rokita".

TODD ROKITA, Secretary of State

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**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**  
*We make Indiana a cleaner, healthier place to live*

*Frank O'Bannon*  
Governor

*Lori F. Kaplan*  
Commissioner

100 North Senate Avenue  
P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
(317) 232-8603  
(800) 451-6027  
[www.state.in.us/idem](http://www.state.in.us/idem)

May 18, 2000

66-34

**To:** Jennings Water, Inc.  
Attn: Jim Hall  
1595 E Buckeye St  
North Vernon, IN 47265

**From:** Al Lao, Chief  
Public Water Supply Compliance Section  
Drinking Water Branch  
Office of Water Management

**Re:** Consumer Confidence Report Reminder  
PWSID #5240006

Pursuant to 40 CFR §141.152, each community water system must deliver a Consumer Confidence Report (CCR) to its customers annually beginning in 1999. This letter serves as a reminder that your system's second CCR, covering calendar year 1999, must be completed and directly delivered to your customers no later than July 1, 2000.

In addition, a copy of your CCR must be delivered by July 1, 2000, to the County Health Department of any county in which you serve water and to the Indiana Department of Environmental Management (IDEM). You must also provide certification to IDEM, no later than October 1, 2000, that your CCR was actually delivered to customers. Please direct all correspondence to:

**Indiana Department of Environmental Management  
Drinking Water Branch  
Attn: Jill Shalabi  
P.O. Box 7148  
Indianapolis, IN 46207-7148**

Attached is a list of the most common mistakes found in the first round of CCRs. Please take a moment to review this list. It may prevent your system from producing a report that does not meet all of the requirements of the CCR Rule.

If you have questions about your CCR requirements, or if you require assistance preparing your CCR, please contact Ms. Jill Shalabi of my staff at (317) 308-3290.

JS:jds  
Attachment (on back)

**JENNINGS WATER, INC.**  
Jennings County, Indiana

Schedule of Present and Proposed Rates

Line No.				Per 1,000 Gallons				
				Present Rates	Proposed Rates	Difference		
						Amount	Percent	
1	(a) <u>Metered Rates per Month</u>							
2								
3	First	25,000	gallons per month	\$4.70	now current			
4	Over	25,000	gallons per month	3.11		\$6.28	\$1.58	33.59%
5					4.15	1.04	33.59%	
6								
7	(b) <u>Minimum Charge per Month</u>							
8								
9			Consumption					
10	Meter		per Month					
11	Size		(Gallons)					
12								
13	5/8"	1,900		\$8.92	\$11.93	3.01	33.70%	
14	3/4"	2,850		13.39	17.90	4.51	33.66%	
15	1"	4,750		22.31	29.83	7.52	33.72%	
16	1 1/4"	7,600		35.70	47.73	12.03	33.70%	
17	1 1/2"	9,500		44.63	59.66	15.03	33.68%	
18	2"	15,200		71.39	95.46	24.07	33.71%	
19	3"	28,500		128.33	171.53	43.20	33.67%	
20	4"	47,500		187.47	250.38	62.91	33.56%	
21								
22								
23								
24	(c) <u>Fire Protection Service (Rate per Annum)</u>							
25	<u>Hydrants</u>							
26	Public Hydrants, 6" and less, each			\$258.76	\$345.67	86.91	33.59%	
27	Private Hydrants, 6" and less, each			258.76	345.67	86.91	33.59%	
28								
29	Public Hydrants, 8" and larger, but							
30	not to exceed 10", each			\$487.52	\$651.27	163.75	33.59%	
31								
32	<u>Automatic Sprinklers</u>							
33	1"	connection		\$7.19	\$9.60	\$2.41	33.59%	
34	1 1/4"	connection		11.24	15.02	3.78	33.59%	
35	1 1/2"	connection		16.17	21.60	5.43	33.59%	
36	2"	connection		28.75	38.41	9.66	33.59%	
37	3"	connection		64.69	86.42	21.73	33.59%	
38	4"	connection		115.01	153.64	38.63	33.59%	
39	6"	connection		258.76	345.67	86.91	33.59%	
40								
41								
42								
43	(d) <u>Sales for Resale</u>							
44	(applicable to CSL Utilities, Inc.)							
45								
46	First	25,000	gallons per month	\$4.70	\$6.28	\$1.58	33.59%	
47	Over	25,000	gallons per month	3.11	4.15	1.04	33.59%	

06-sch-rates-33.59%,123

See Accountant's Report